FILE 'HCAPLUS' ENTERED AT 21:01:30 ON 22 JAN 2004
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=> d his

(FILE 'HOME' ENTERED AT 20:56:48 ON 22 JAN 2004)

FILE 'REGISTRY' ENTERED AT 20:57:10 ON 22 JAN 2004

L1 STRUCTURE UPLOADED

L2 1 S L1 SSS SAM

L3 9 S L1 SSS FULL

FILE 'HCAPLUS, USPATFULL' ENTERED AT 20:58:23 ON 22 JAN 2004

L4 40 S L3

L5 6 S L4 AND ARTHRIT?

L6 6 DUP REM L5 (0 DUPLICATES REMOVED)

FILE 'STNGUIDE' ENTERED AT 20:59:19 ON 22 JAN 2004

FILE 'HCAPLUS, USPATFULL' ENTERED AT 21:01:30 ON 22 JAN 2004

=> s 14 not 16

L7 34 L4 NOT L6

=> s 17 and (tumor? or cancer? or metastas? or carcinom? or neoplas? or osteoarthrit? or sepsis or septic or osteoporo?)
L8 33 L7 AND (TUMOR? OR CANCER? OR METASTAS? OR CARCINOM? OR NEOPLAS?

OR OSTEOARTHRIT? OR SEPSIS OR SEPTIC OR OSTEOPORO?)

=> dup rem 18

PROCESSING COMPLETED FOR L8

L9 29 DUP REM L8 (4 DUPLICATES REMOVED)

=> d 19 abs ibib kwic hitstr 1-29

L9 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1 AB Urea derivs. of formula A-NHCONH-B or pharmaceutically acceptable salts thereof [A = a substituted moiety of up to 40 carbon atoms of the formula -L-(M-L1)q; where L = a 5 or 6 membered cyclic structure bound directly to D; L1 = a substituted cyclic moiety having at least 5 members; M = abridging group having at least one atom; q = an integer of 1-3; each cyclic structure of L and L1 contains 0-4 members of the group consisting of nitrogen, oxygen and sulfur; B = a substituted or unsubstituted, up to tricyclic aryl or heteroaryl moiety of up to 30 carbon atoms with at least one 6-member cyclic structure bound directly to D contg. 0-4 members of the group consisting of nitrogen, oxygen and sulfur] are prepd. These compds. are useful for raf mediated diseases, in particular a cancerous cell growth mediated by raf kinase. All compds. exemplified, e.g. N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-(Nmethylcarbamoyl)-4-pyridyloxy]phenyl]urea, displayed IC50 of between 1 mM and 10 .mu.M.

ACCESSION NUMBER: 2003:874965 HCAPLUS

DOCUMENT NUMBER: 139:364958

TITLE: Preparation of omega-carboxyaryl substituted diphenyl

ureas as raf kinase inhibitors

INVENTOR(S): Riedl, Bernd; Dumas, Jacques; Khire, Uday; Lowinger,

Timothy B.; Scott, William J.; Smith, Roger A.; Wood, Jill E.; Monahan, Mary-Katherine; Natero, Reina;

Renick, Joel; Sibley, Robert N.

PATENT ASSIGNEE(S): Bayer Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 60 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

US 2003207872 A1 20031106 US 2002-42226 20020111

PRIORITY APPLN. INFO.: US 2002-42226 20020111

OTHER SOURCE(S): MARPAT 139:364958

AB. . . . group consisting of nitrogen, oxygen and sulfur] are prepd. These compds. are useful for raf mediated diseases, in particular a cancerous cell growth mediated by raf kinase. All compds. exemplified, e.g. N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)-4-pyridyloxy]phenyl]urea, displayed IC50 of between 1 mM and 10 .mu.M.

ST carboxyaryldiphenylurea prepn raf kinase inhibitor; cancerous cell growth treatment carboxyaryldiphenylurea prepn; raf mediated disease treatment carboxyaryldiphenylurea prepn; phenylpyridyloxyphenylurea prepn raf kinase inhibitor

IT Antitumor agents

Neoplasm

(prepn. of .omega.-carboxyaryl substituted di-Ph ureas as raf kinase inhibitors for treating raf-mediated diseases such as cancerous cell growth)

IT Gene, animal

RL: BSU (Biological study, unclassified); BIOL (Biological study) (raf; prepn. of .omega.-carboxyaryl substituted di-Ph ureas as raf kinase inhibitors for treating raf-mediated diseases such as cancerous cell growth)

ΙT 284462-67-5P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-(4-284462-68-6P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-(4-ethoxycarbonylphenyl)urea 284462-97-1P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-(4-carboxyphenyl)urea N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[3-(5methoxycarbonylpyridyl)oxy]phenyl]urea 620963-02-2P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-(3methoxycarbonylphenyl)carboxyaminophenyl]urea 620963-04-4P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-(3methylcarbamoylphenyl)carboxyaminophenyl]urea RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses) (intermediate; prepn. of .omega.-carboxyaryl substituted di-Ph ureas as raf kinase inhibitors for treating raf-mediated diseases such as cancerous cell growth)

```
349-65-5P, 2-Methoxy-5-(trifluoromethyl)aniline
                                                                                    703-12-8P,
IT
                                                              883-62-5P, 3-Methoxy-2-naphthoic Acid
       N-Methyl-4-bromobenzenesulfonamide
       1215-98-1P, 4-(4-Acetylphenoxy)aniline
                                                                      13041-60-6P, Methyl
       3-methoxy-2-naphthoate 16588-75-3P, 2-Methoxy-5-(trifluoromethyl)phenyl
                           27237-21-4P, 4-(3-Carboxyphenoxy)-1-nitrobenzene
       isocyanate
       36089-89-1P, 4-(4-Methylsulfonylphenoxy)-1-nitrobenzene
                                                                                                 41513-02-4P,
       4-Bromo-3-(trifluoromethyl)phenyl Isocyanate
                                                                              50727-06-5P,
                                                         51727-15-2P, 4-Chloropyridine-2-carbonyl
       5-Hydroxyisoindoline-1,3-dione
                                             53750-66-6P, 4-Chloropyridine-2-carbonyl chloride
       chloride hydrochloride
       54579-63-4P, 4-(3-Carboxyphenoxy)aniline
                                                                         64064-63-7P,
       4-(2-Methyl-5-pyridyloxy)-1-nitrobenzene
                                                                         67291-63-8P,
       2-Amino-3-methoxynaphthalene
                                                      71708-64-0P, 4-[3-(N-
       Methylcarbamoyl)phenoxy]-1-nitrobenzene
                                                                       73441-73-3P,
       4-[4-(N-Methylsulfamoyl)phenoxy]-1-nitrobenzene
       4-[4-(N-Methylsulfamoyl)phenyloxy]aniline
                                                                           75919-92-5P,
       4-(4-Acetylphenoxy)-1-nitrobenzene
                                                              77992-50-8P, 4-Bromo-3-
       (trifluoromethyl)aniline monohydrochloride 99586-65-9P,
       4-Chloro-2-pyridinecarboxamide
                                                         114780-06-2P, 4-Chloro-N, N-dimethyl-2-
       pyridinecarboxamide
                                         119431-22-0P, 3-Chloro-4-(2,2,2-
       trifluoroacetylamino)phenol
                                                    153435-79-1P, N-Methyl-3-
                                             176977-85-8P, Methyl 4-chloropyridine-2-
       bromobenzenesulfonamide
                                                  220000-87-3P, 4-Chloro-N-methyl-2-
       carboxylate hydrochloride
                                         228401-15-8P, 2-[N-(Carbobenzyloxy)amino]-3-
       pyridinecarboxamide
                                       228401-43-2P, 4-(3-Methoxycarbonyl-4-methoxyphenoxy)-
       methoxynaphthalene
                                 228401-44-3P, 4-(3-Carboxy-4-methoxyphenoxy)-1-
       1-nitrobenzene
                              284461-86-5P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-
       nitrobenzene
       [2-(methoxycarbonyl)-5-pyridyloxy]phenyl]urea
                                                                                 284462-06-2P,
       triisopropylsilyloxyethyl)carbamoyl]-4-pyridyl]oxy]phenyl]urea
       284462-37-9P, 4-[2-(N-Methylcarbamyl)-4-pyridyloxy]aniline
                                                                                                    284462-38-0P,
       5-(4-Nitrophenoxy)isoindoline-1,3-dione
                                                                       284462-39-1P,
       5-(4-Aminophenoxy)isoindoline-1,3-dione
                                                                        284462-40-4P,
       1-(4-tert-Butyl-2-nitrophenyl)-2,5-dimethylpyrrole
                                                                                        284462-41-5P,
       5-tert-Butyl-2-(2,5-dimethylpyrrolyl)aniline
                                                                              284462-42-6P,
       4-[2-(N-Methylcarbamoyl)-4-pyridyloxy]-2-methylaniline hydrochloride
                              284462-44-8P, 4-[2-(N-Methylcarbamoyl)-4-pyridyloxy]-2-
       284462-43-7P
                               284462-45-9P, 4-Chloro-2-methoxy-5-
       chloroaniline
                                                284462-46-0P, 4-[3-(N-Methylcarbamoyl)-4-
       (trifluoromethyl)aniline
                                                        284462-47-1P, 4-[3-(N-Methylcarbamoyl)-4-
       methoxyphenoxy]-1-nitrobenzene
                                           284462-48-2P, 5-(4-Nitrophenoxy)-2-
       methoxyphenoxy]aniline
       methylisoindoline-1,3-dione
                                                    284462-49-3P, 5-(4-Aminophenoxy)-2-
       methylisoindoline-1,3-dione
                                                     284462-51-7P, 4-Chloro-2-[N-(2-morpholin-4-
       ylethyl)carbamoyl]pyridine
                                                   284462-52-8P, 4-[2-[N-(2-Morpholin-4-
       ylethyl)carbamoyl]-4-pyridyloxy]aniline
                                                                       284462-53-9P,
       4-(1-0xoisoindolin-5-yloxy)-1-nitrobenzene
                                                                            284462-54-0P.
       4-(1-0xoisoindolin-5-yloxy) aniline
                                                              284462-55-1P, 4-(3-
       Ethoxycarbonylphenoxy)-1-nitrobenzene
                                                                    284462-56-2P, 4-[3-(N-
       Methylcarbamoyl)phenoxy]aniline
                                                           284462-57-3P, 4-(5-Methoxycarbonyl-3-
                                                   284462-58-4P, 4-(5-Methoxycarbonyl-3-
       pyridyloxy)-1-nitrobenzene
                                       284462-59-5P, 4-[3-(N-Methylsulfamoyl)phenyloxy]benze
       pyridyloxy) aniline
               284462-60-8P, 4-[3-(N-Methylsulfamoyl)phenyloxy]-1-nitrobenzene
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                                                                                       284462-62-0P,
                                                                                                   284462-63-1P,
       4-[4-[1-(Methoxyimino)ethyl]phenoxy]aniline hydrochloride
       4-Chloro-N-(2-triisopropylsilyloxy)ethylpyridine-2-carboxamide
       284462-64-2P, 4-[[2-[N-(2-Triisopropylsilyloxyethyl) carbamoyl]-4-[[2-[N-(2-Triisopropylsilyloxyethyl) carbamoyl]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyloxyethyl]]]-4-[[2-[N-(2-Triisopropylsilyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyloxyethyl
                                         284462-65-3P, 4-(2-Methoxycarbonyl-5-pyridyloxy)-1-
       pyridyl]oxy]aniline
                              284462-66-4P, 4-(2-Methoxycarbonyl-5-pyridyloxy) aniline
       nitrobenzene
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284462-74-4P, 4-[2-(N-Methylcarbamoyl)-4-pyridyloxy]-2-methylaniline
284462-77-7P, 5-tert-Butyl-2-methoxyphenyl isocyanate 284462-78-8P,
3-[-2-(N-Methylcarbamoyl)-4-pyridyloxy]aniline
                                                284462-79-9P,
3-(2-Carbamoyl-4-pyridyloxy)aniline 284462-80-2P, 4-(2-Carbamoyl-4-
                     284462-82-4P, 4-[2-(N-Ethylcarbamoyl)-4-
pyridyloxy)aniline
pyridyloxy]aniline
                     284462-83-5P, 4-[2-(N-Methylcarbamoyl)-4-pyridyloxy]-
                 284462-84-6P
                                 284462-85-7P, 4-(3-
3-chloroaniline
                           284462-86-8P, 4-[2-(N,N-Dimethylcarbamoyl)-4-
Carbamoylphenoxy)aniline
                     284462-89-1P, 4-[2-(N-Isopropylcarbamoyl)-4-
pyridyloxy]aniline
pyridyloxy]aniline
                     284462-92-6P, 3-[2-(N-Methylcarbamoyl)-4-pyridyloxy]-
                  284462-93-7P, 4-[3-[N-(2-Morpholinylethyl) carbamoyl]phen
4-methylaniline
oxy]aniline
             284462-94-8P, 4-[3-[N-(2-Piperidylethyl) carbamoyl]phenoxy]an
iline
        284462-95-9P, 4-[3-[N-(Tetrahydrofurylmethyl)carbamoyl]phenoxy]ani
       284462-99-3P, 4-Chloro-2-methoxy-5-(trifluoromethyl)phenyl
           284670-99-1P, 4-(4-Acetylphenoxy)-5-aminopyridine
isocyanate
284671-00-7P, N-[5-(Trifluoromethyl)-2-methoxyphenyl]-N'-[4-[3-(5-
methoxycarbonylpyridyl)oxy]phenyl]urea
                                         284671-01-8P,
N-[5-(Trifluoromethyl)-2-methoxyphenyl]-N'-(3-carboxyphenyl)urea
573673-51-5P, 4-[4-[2-(N-Methylcarbamoyl)phenyl]thio]aniline
573673-52-6P, 3-[4-[2-(N-Methylcarbamoyl)phenyl]thio]aniline
573673-55-9P, 4-[3-[N-[(1-Methyl-2-pyrrolidinyl)methyl]carbamoyl]phenoxy]a
         604813-03-8P, 4-(5-Methylcarbamoyl-3-pyridyloxy)aniline
niline
              604813-07-2P, 4-Chloro-N-ethyl-2-pyridinecarboxamide
604813-05-0P
604813-08-3P, 4-Chloro-N-isopropyl-2-pyridinecarboxamide
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4-[4-(N-Methylsulfamoyl)phenoxy]benzene
                                         604813-11-8P,
4-[3-[N-(2-Morpholinylethyl)carbamoyl]phenoxy]-1-nitrobenzene
604813-12-9P, 4-[3-[N-(2-Piperidylethyl)carbamoyl]phenoxy]-1-nitrobenzene
604813-13-0P, 4-[3-[N-(Tetrahydrofurylmethyl)carbamoyl]phenoxy]-1-
              604813-14-1P, 4-[3-[N-[(1-Methyl-2-
nitrobenzene
pyrrolidinyl)methyl]carbamoyl]phenoxy]-1-nitrobenzene
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
   (intermediate; prepn. of .omega.-carboxyaryl substituted di-Ph ureas as
   raf kinase inhibitors for treating raf-mediated diseases such as
   cancerous cell growth)
139691-76-2, Raf Kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
   (prepn. of .omega.-carboxyaryl substituted di-Ph ureas as raf kinase
   inhibitors for treating raf-mediated diseases such as cancerous
   cell growth)
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228418-48-2P
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284461-81-0P
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                              284461-89-8P
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284461-92-3P
               284461-93-4P
                              284461-94-5P
                                             284461-95-6P
                                                            284461-96-7P
               284461-99-0P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-
284461-97-8P
                                                284462-00-6P
(3-methylcarbamoylphenyl)carbamoylphenyl]urea
284462-01-7P
               284462-02-8P
                              284462-03-9P
                                             284462-04-0P
                                                            284462-05-1P
284462-07-3P
               284462-08-4P
                              284462-09-5P
                                             284462-10-8P
                                                            284462-11-9P
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TΤ

IT

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    284462-28-8P 284462-29-9P 284462-30-2P
    284462-31-3P
                   284462-34-6P
                                  284462-35-7P, N-[5-(tert-Butyl)-2-(2,5-
    dimethylpyrrolyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)-4-
    pyridyloxy]phenyl]urea
                             284462-36-8P
                                           284462-70-0P, N-[4-Chloro-3-
    (trifluoromethyl)phenyl]-N'-[4-[N-[3-[N-(3-pyridyl)carbamoyl]phenyl]carbam
    oyl]phenyl]urea
                     284670-98-0P, N, N'-Bis[4-[2-(N-methylcarbamoyl)-4-
    pyridyloxy]phenyl]urea
                             447457-08-1P
                                           573673-43-5P
                                                          604813-02-7P
    604813-04-9P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[[3-[5-(2-
    dimethylaminoethyl)carbamoyl]pyridyl]oxy]phenyl]urea 620962-97-2P
    620962-98-3P
                   620962-99-4P
                                620963-00-0P
    RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
    (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (prepn. of .omega.-carboxyaryl substituted di-Ph ureas as raf kinase
       inhibitors for treating raf-mediated diseases such as cancerous
       cell growth)
    474642-51-8P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-(3-
    carboxyphenyl)urea 573673-47-9P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-
    N'-[4-[3-(5-carboxypyridyl)oxy]phenyl]urea
    RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
    preparation); THU (Therapeutic use); BIOL (Biological study); PREP
    (Preparation); RACT (Reactant or reagent); USES (Uses)
        (reactant; prepn. of .omega.-carboxyaryl substituted di-Ph ureas as raf
       kinase inhibitors for treating raf-mediated diseases such as
       cancerous cell growth)
IT
    74-88-4, Iodomethane, reactions
                                     74-89-5, Methylamine, reactions
                                     75-31-0, Isopropylamine, reactions
    75-04-7, Ethylamine, reactions
    75-44-5, Phosgene 77-78-1, Dimethyl sulfate 98-58-8,
    4-Bromobenzenesulfonyl chloride
                                    98-98-6, Picolinic acid
                                                                99-93-4,
    p-Hydroxyacetophenone 99-98-9, 4-(Dimethylamino)aniline
                                                                100-51-6,
    Benzyl alcohol, reactions 106-50-3, p-Phenylenediamine, reactions
    108-00-9, N,N-Dimethylethylenediamine 108-95-2, Phenol, reactions
    109-85-3, 2-Methoxyethylamine 110-13-4, Acetonylacetone
                                                              123-30-8,
    4-Aminophenol
                   123-39-7, N-Methylformamide 124-40-3, Dimethylamine,
    reactions
                127-19-5, Dimethylacetamide
                                            141-43-5, 2-Hydroxyethylamine,
                320-51-4, 4-Chloro-3-(trifluoromethyl)aniline
    reactions
                                                                327-78-6,
    4-Chloro-3-(trifluoromethyl)phenyl isocyanate
                                                   350-46-9,
                             371-40-4, 4-Fluoroaniline
    1-Fluoro-4-nitrobenzene
                                                          393-36-2,
    4-Bromo-3-(trifluoromethyl)aniline 407-25-0, Trifluoroacetic anhydride
    462-08-8, 3-Aminopyridine
                               490-79-9, 2,5-Dihydroxybenzoic acid
    503-38-8, Trichloromethyl chloroformate
                                            530-62-1, N,N'-
    Carbonyldiimidazole
                          591-27-5, 3-Aminophenol
                                                    593-56-6.
    O-Methylhydroxylamine hydrochloride
                                          610-35-5, 4-Hydroxyphthalic acid
    619-08-9, 2-Chloro-4-nitrophenol
                                       626-61-9, 4-Chloropyridine
    Methyl 3-hydroxy-2-naphthoate 1121-78-4, 5-Hydroxy-2-methylpyridine
    1193-02-8, 4-Aminothiophenol
                                  1664-40-0, N-Phenylethylenediamine
    1877-71-0, Monomethyl isophthalate
                                       2038-03-1, 4-(2-Aminoethyl) morpholine
    2252-63-3, N-(4-Fluorophenyl)piperazine 2524-67-6, 4-Morpholinoaniline
    2835-99-6, 4-Amino-3-methylphenol 2905-24-0, 3-Bromobenzenesulfonyl
               3535-88-4, 5-tert-Butyl-2-methoxyaniline 3964-52-1,
    4-Amino-2-chlorophenol 4548-45-2, 2-Chloro-5-nitropyridine
                                                                   4795-29-3,
    Tetrahydrofurfurylamine 5369-19-7, 3-tert-Butylaniline
                                                               6310-19-6.
    2-Nitro-4-tert-butylaniline 6628-77-9, 5-Amino-2-methoxypyridine
    6927-86-2, 4-(4-Acetylphenoxy) aniline hydrochloride 7664-41-7, Ammonia,
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7781-98-8, Ethyl 3-hydroxybenzoate 13154-24-0, 22948-02-3, 3-Aminothiophenol 24484-93-3, Triisopropylsilyl chloride Methyl 4-chloropyridine-2-carboxylate 25900-61-2, 3-26116-12-1, 2-Aminomethyl-1-ethylpyrrolidine Methylcarbamoylaniline 27578-60-5, 1-(2-Aminoethyl)piperidine 29264-35-5, 4-(3-Carboxy-4-30766-22-4, Methyl 5-hydroxynicotinate hydroxyphenoxy)-1-nitrobenzene 30806-83-8, Ethyl 4-isocyanatobenzoate 32315-10-9, Bis(trichloromethyl) 34803-66-2, N-(2-Pyridyl)piperazine 36265-31-3, 4-(4-Methylthiophenoxy)-1-nitrobenzene 51639-48-6, N-(4-Acetylphenyl)piperazine 106164-64-1, 4-(3-Carbamoylphenoxy)-1nitrobenzene 150009-83-9, 3-Amino-2-methoxyquinoline 252061-66-8, 5-Hydroxyisoindolin-1-one 284462-72-2, 3-Chloro-6-acetamido-4-(trifluoromethyl)anisole 284462-73-3, 4-Chloro-N-(2hydroxyethyl)pyridine-2-carboxamide 447457-10-5, 4-Chloro-3-(trifluoromethyl)-2-methoxyphenyl isocyanate 604813-06-1, 4,5-Amino-2-methylphenol 620963-05-5 RL: RCT (Reactant); RACT (Reactant or reagent) (reactant; prepn. of .omega.-carboxyaryl substituted di-Ph ureas as raf kinase inhibitors for treating raf-mediated diseases such as cancerous cell growth) 284461-73-0P 284461-78-5P 284461-80-9P

IT 284461-73-0P 284461-78-5P 284461-80-9P 284461-83-2P 284462-28-8P 284462-29-9P 284462-30-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of .omega.-carboxyaryl substituted di-Ph ureas as raf kinase inhibitors for treating raf-mediated diseases such as cancerous cell growth)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284461-83-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-28-8 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-29-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-30-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2 Aryl ureas of formula A-NHCONH-B [A = a substituted moiety of up to 40 AB carbon atoms of the formula: -L-(M-L1)q (where L = a 5 or 6 membered cyclic structure bound directly to D, L1 comprises a substituted cyclic moiety having at least 5 members; M = a bridging group having at least one atom; q = an integer of from 1-3; each cyclic structure of L and L1 contains 0-4 members of the group consisting of nitrogen, oxygen and sulfur); B = a substituted or unsubstituted, up to tricyclic aryl or heteroaryl moiety of up to 30 carbon atoms with at least one 6-member cyclic structure bound directly to D contg. 0-4 members of the group consisting of nitrogen, oxygen and sulfur] are prepd. These urea derivs. are useful for treating raf mediated diseases, in particular cancerous cell growth mediated by raf kinase. Thus,

pyridyloxy]phenyl]urea. Thus, a soln. of 4-bromo-3-(trifluoromethyl)phenyl isocyanate (8.0 g, 30.1 mmol) in CH2Cl2 (80 mL) was added dropwise to a soln. of 4-[2-(N-methylcarbamoyl)-4pyridyloxy]aniline (7.0 g, 28.8 mmol) in CH2Cl2 (40 mL) at 0.degree., stirred at room temp. for 16 h, and filtered to give, after washing the yellow solids, washing with CH2Cl2 (2 .times. 50 mL), and drying under reduced pressure (approx. 1 mmHq) at 40.degree. to give N-[4-bromo-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)-4pyridyloxy]phenyl]urea. All compds. exemplified showed IC50 between 1 nM to 10 .mu.M against raf kinase. ACCESSION NUMBER: 2003:757329 HCAPLUS DOCUMENT NUMBER: 139:276918 TITLE: Preparation of omega-carboxyaryl substituted diphenyl ureas as raf kinase inhibitors Riedl, Bernd; Dumas, Jacques; Khire, Uday; Lowinger, INVENTOR(S): Timothy B.; Scott, William J.; Smith, Roger A.; Wood, Jill E.; Monahan, Mary-katherine; Natero, Reina; Renick, Joel; Sibley, Robert N. Bayer Corporation, USA PATENT ASSIGNEE(S): U.S. Pat. Appl. Publ., 61 pp. SOURCE: CODEN: USXXCO DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE 20030925 US 2001-993647 20011127 US 2003181442 A1 US 2001-993647 20011127 MARPAT 139:276918 . . . consisting of nitrogen, oxygen and sulfur] are prepd. These urea derivs. are useful for treating raf mediated diseases, in particular cancerous cell growth mediated by raf kinase. Thus,

PRIORITY APPLN. INFO.: OTHER SOURCE(S):

N-[4-bromo-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)-4pyridyloxy]phenyl]urea. Thus, a soln. of 4-bromo-3-(trifluoromethyl)phenyl isocyanate (8.0 g, 30.1 mmol) in CH2Cl2. . . IT Antitumor agents

Neoplasm

(prepn. of omega-carboxyaryl substituted di-Ph ureas as raf kinase inhibitors and anticancer agents)

IT 284461-33-2P, N-(3-tert-Butylphenyl)-N'-[4-[3-(methylcarbamoyl)phenoxy]phenyl]urea 284461-34-3P, N-(3-tert-Butylphenyl)-N'-[4-(4-acetylphenoxy)phenyl]urea 284461-35-4P 284461-36-5P, N-(5-tert-Butyl-2-methoxyphenyl)-N'-[4-[3-(methylcarbamoyl)phenoxy]phenyl]urea 284461-37-6P 284461-38-7P 284461-39-8P 284461-40-1P 284461-41-2P 284461-42-3P 284461-43-4P, N-(2-Methoxy-5-trifluoromethylphenyl)-N'-[3-(2-carbamoyl-4pyridyloxy)phenyl]urea 284461-44-5P, N-(2-Methoxy-5trifluoromethylphenyl)-N'-[4-[[2-(methylcarbamoyl)-4pyridyl]oxy]phenyl]urea 284461-45-6P, N-(2-Methoxy-5trifluoromethylphenyl)-N'-[4-[(2-carbamoyl-4-pyridyl)oxy]phenyl]urea 284461-48-9P 284461-49-0P, 284461-46-7P 284461-47-8P N-(2-Methoxy-5-trifluoromethylphenyl)-N'-[3-[(2-carbamoyl-4-pyridyl)oxy]-4-284461-50-3P 284461-51-4P 284461-52-5P methylphenyl]urea 284461-53-6P 284461-54-7P 284461-55-8P 284461-56-9P 284461-57-0P, N-(2-Methoxy-5-trifluoromethylphenyl)-N'-[4-[4-[1-

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(methoxyimino)ethyl]phenoxy]phenyl]urea
                                                                          284461-58-1P
                                                                                                     284461-59-2P
284461-60-5P, N-(2-Methoxy-5-trifluoromethylphenyl)-N'-[3-[[2-
(methylcarbamoyl)-4-pyridyl]thio]phenyl]urea
                                                                                   284461-61-6P
                                                                                                              284461-62-7P
                                                                                                           284461-67-2P
284461-63-8P
                          284461-64-9P
                                                     284461-65-0P
                                                                                284461-66-1P
                                                     284461-70-7P
                                                                                284461-71-8P
                                                                                                           284461-72-9P
284461-68-3P
                          284461-69-4P
                          284461-74-1P, N-(4-Chloro-3-trifluoromethylphenyl)-
284461-73-0P
N'-[4-[(2-carbamoyl-4-pyridyl)oxy]phenyl]urea
                                                                                    284461-75-2P,
N-(4-Chloro-3-trifluoromethylphenyl)-N'-[3-[(2-carbamoyl-4-
pyridyl)oxy]phenyl]urea 284461-76-3P, N-(4-Chloro-3-
trifluoromethylphenyl)-N'-[3-[(2-methylcarbamoyl-4-pyridyl)oxy]phenyl]urea
                                               284461-79-6P 284461-80-9P
284461-77-4P 284461-78-5P
284461-81-0P
                          284461-82-1P 284461-83-2P
                                                                            284461-84-3P
284461-85-4P
                          284461-88-7P
                                                     284461-89-8P
                                                                                284461-90-1P
                                                                                                           284461-91-2P
                          284461-93-4P
                                                     284461-94-5P
                                                                                284461-95-6P
                                                                                                           284461-96-7P
284461-92-3P
                                                     284462-01-7P
                                                                                284462-02-8P
                                                                                                           284462-03-9P
284461-97-8P
                          284462-00-6P
284462-04-0P
                                                     284462-07-3P
                                                                                                           284462-09-5P
                          284462-05-1P
                                                                                284462-08-4P
                          284462-11-9P
                                                     284462-12-0P
                                                                                284462-13-1P
                                                                                                           284462-15-3P
284462-10-8P
                                                                                                           284462-20-0P
284462-16-4P
                          284462-17-5P
                                                     284462-18-6P
                                                                                284462-19-7P
284462-21-1P
                          284462-22-2P
                                                     284462-23-3P
                                                                                284462-24-4P
                                                                                                           284462-25-5P
284462-26-6P
                          284462-27-7P 284462-28-8P 284462-29-9P
                                                                                284462-34-6P
284462-30-2P
                          284462-31-3P
                                                     284462-32-4P
methylcarbamoyl4-pyridyl)oxy]phenyl]urea 284462-36-8P 284462-70-0P,
N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[N-[3-[N-(3-N-1]]]-N'-[4-N-1]]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]-N'-[4-N-1]
pyridyl)carbamoyl]phenyl]carbamoyl]phenyl]urea
                                                                                       447457-08-1P
447457-09-2P
                          573673-43-5P
                                                   604813-02-7P 604813-04-9P,
N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[3-[5-[[2-
(dimethylamino)ethyl]carbamoyl]pyridyl]oxy]phenyl]urea
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
      (prepn. of omega-carboxyaryl substituted di-Ph ureas as raf kinase
     inhibitors and anticancer agents)
284461-73-0P 284461-78-5P 284461-80-9P
284461-83-2P 284462-28-8P 284462-29-9P
284462-30-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
      (prepn. of omega-carboxyaryl substituted di-Ph ureas as raf kinase
     inhibitors and anticancer agents)
284461-73-0 HCAPLUS
2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c
arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)
```

TT

RN

CN

RN 284461-78-5 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284461-83-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-28-8 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-29-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-30-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3 ADB [I; D = NHCONH; A = L(ML1)q; L = 5-6 membered cyclic structure bound AB directly to D; L1 = substituted cyclic moiety having .gtoreq.5 members, M = bridging group having .gtoreq.1 atom; q = 1-3; L, L1 contain 0-4 N, O, S; B = (substituted) up to tricyclic aryl, heteroaryl of .ltoreq.30 C atoms with .gtoreq.1 6-membered cyclic structure bound directly to D contg. 0-4 N, O, S], were prepd. Thus, 4-chloro-3-(trifluoromethyl)phenyl isocyanate in CH2Cl2 was added dropwise to a suspension of 4-[2-(N-methylcarbamoyl)-4-pyridyloxy]aniline (prepn. given) in CH2Cl2 at O.degree.; the resulting mixt. was stirred at room temp. for 22 h. to afford N-[4-chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)-4-pyridyloxy]phenyl]urea. I inhibited RAF kinase in the range 1 nM-1 .mu.M. I pharmaceutical compns. are claimed. ACCESSION NUMBER: 2003:590832 HCAPLUS

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DOCUMENT NUMBER:
                         139:149528
                         Preparation of diphenylureas as RAF kinase inhibitors
                         Riedl, Bernd; Dumas, Jacques; Khire, Uday; Lowinger,
INVENTOR(S):
                         Timothy B.; Scott, William J.; Smith, Roger A.; Wood,
                         Jill E.; Monahan, Mary-katherine; Natero, Reina;
                         Renick, Joel; Sibley, Robert N.
PATENT ASSIGNEE(S):
                         Bayer Corporation, USA
SOURCE:
                         U.S. Pat. Appl. Publ., 62 pp., Cont. of U. S. Ser. No.
                         42,203.
                         CODEN: USXXCO
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
     US 2003144278
                            20030731
                                          US 2002-283248
                                                            20021030
                      A1
                                        US 2001-367380P P 20010112
PRIORITY APPLN. INFO.:
                                        US 2002-42203
                                                       A1 20020111
OTHER SOURCE(S):
                        MARPAT 139:149528
IT
     Neoplasm
        (treatment; prepn. of diphenylureas as RAF kinase inhibitors)
                    284461-33-2P, N-(3-tert-Butylphenyl)-N'-[4-[3-(N-
IT
     228418-48-2P
     methylcarbamoyl)phenoxy]phenyl urea 284461-34-3P, N-(3-tert-Butylphenyl)-
     N'-[4-(4-acetylphenoxy)phenyl urea 284461-35-4P
                                                       284461-36-5P,
     N-(5-tert-Butyl-2-methoxyphenyl)-N'-[4-[3-(N-methylcarbamoyl)phenoxy]pheny
              284461-37-6P, N-(5-tert-Butyl-2-methoxyphenyl)-N'-[4-[4-methoxy-3-
     (N-methylcarbamoy 1) phenoxy] phenyl] urea 284461-38-7P,
     N-(5-tert-Butyl-2-methoxyphenyl)-N'-[4-(1,3-dioxoisoindolin-5-
                       284461-39-8P, N-(5-tert-Butyl-2-methoxyphenyl)-N'-[4-
     yloxy)phenyl]urea
     (1-oxoisoindolin-5-yloxy)pheny 1] urea 284461-40-1P 284461-41-2P
     284461-42-3P, N-[2-Methoxy-5-(trifluoromethyl)phenyl]-N'-[3-[2-(N-284461-42-3P)]
     methylcarbamoyl)-4-pyridyloxy]phenyl] urea 284461-43-4P,
     N-[2-Methoxy-5-(trifluoromethyl)phenyl]-N'-[3-(2-carbamoyl-4-pyridyloxy)]
                   284461-44-5P, N-[2-Methoxy-5-(trifluoromethyl)phenyl]-N'-[4-
     phenyl] urea
     [2-(N-methylcarbamoyl)-4-pyridyloxy]phenyl] urea
                                                        284461-45-6P,
     N-[2-Methoxy-5-(trifluoromethyl)phenyl]-N'-[4-(2-carbamoyl-4-pyridyloxy)
     phenyl] urea
                  284461-46-7P
                                   284461-47-8P
                                                 284461-48-9P
                                                                 284461-49-0P
     284461-50-3P
                    284461-51-4P
                                   284461-52-5P
                                                  284461-53-6P
                                                                 284461-54-7P,
     N-[2-Methoxy-5-(trifluoromethyl)phenyl-N'-[4-(1,3-dioxoisoindolin-5-yloxy)
     phenyl] Urea 284461-55-8P
                                   284461-56-9P
                                                 284461-57-0P
                                                                 284461-58-1P,
     N-[2-Methoxy-5-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)-4-
     pyridylthio]phenyl] urea 284461-59-2P 284461-60-5P 284461-61-6P
     284461-62-7P
                    284461-63-8P
                                   284461-64-9P
                                                  284461-65-0P
                                                                 284461-66-1P
                    284461-68-3P
                                   284461-69-4P
                                                  284461-70-7P
                                                                 284461-71-8P
     284461-67-2P
     284461-72-9P 284461-73-0P, N-[4-Chloro-3-
     (trifluoromethyl) phenyl] -N'-[4-[2-(N-methylcarbamoyl)-4-
     pyridyloxy]phenyl]urea
                             284461-74-1P, N-[4-Chloro-3-
     (trifluoromethyl)phenyl]-N'-[4-(2-carbamoyl-4-pyridylox y)phenyl]urea
     284461-75-2P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[3-(2-carbamoyl-4-
     pyridylox y)phenyl] urea 284461-76-3P, N-[4-Chloro-3-
     (trifluoromethyl)phenyl]-N'-[3-[2-(N-methylcarbamoyl)-4-
     pyridyloxy]phenyl]urea 284461-77-4P 284461-78-5P
     284461-80-9P
                    284461-81-0P
                                   284461-82-1P 284461-83-2P
     284461-84-3P
                    284461-85-4P
                                   284461-88-7P
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284461-93-4P

284461-94-5P

284461-95-6P

284461-91-2P

284461-92-3P

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284462-00-6P
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                                     284462-02-8P
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         284462-01-7P
         284462-07-3P
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                                    284462-13-1P
                                                                 284462-15-3P
                                                                                             284462-16-4P
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         284462-12-0P
         284462-18-6P, N-[4-Bromo-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-
         methylcarbamoyl)-4-pyridyloxy]phenyl]urea
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         N-[4-Bromo-3-(trifluoromethyl)phenyl]-N'-[3-chloro-4-[2-(N-mother)phenyl]]
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                                                       284462-23-3P
                                                                                  284462-24-4P
         pyridyloxy]phenyl]urea
         284462-26-6P
                                    284462-27-7P 284462-28-8P, N-[2-Methoxy-4-chloro-
         5-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)-4-
         pyridyloxy]phenyl] urea 284462-29-9P 284462-30-2P
         284462-31-3P, N-[2-Methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[2-(N-2-1)]
         methylcarbamoyl)-4-pyridyloxy]phenyl] urea 284462-32-4P
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         284462-35-7P 284462-67-5P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-(4-
                                           284462-68-6P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-
         aminophenyl) Urea
         N'-(4-ethoxycarbonylphenyl)urea
                                                                        284462-70-0P 284462-97-1P
         284670-98-0P
                                   447457-08-1P
                                                                447457-09-2P
                                                                                             474642-51-8P,
         N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-(3-carboxyphenyl)urea
         474642-55-2P
                                     573673-42-4P 573673-43-5P
                                                                                             573673-45-7P
         RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
         (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
         (Uses)
               (prepn. of diphenylureas as RAF kinase inhibitors)
         284461-73-0P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-
IT
         methylcarbamoyl)-4-pyridyloxy]phenyl]urea 284461-78-5P
         284461-80-9P 284461-83-2P 284462-28-8P,
         N-[2-Methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-[2-(N-mu)]-N'-[4-
         methylcarbamoyl)-4-pyridyloxy]phenyl] urea 284462-29-9P
         284462-30-2P
         RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
         (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
         (Uses)
               (prepn. of diphenylureas as RAF kinase inhibitors)
         284461-73-0 HCAPLUS
RN
         2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c
CN
         arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)
```

RN 284461-78-5 HCAPLUS
CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284461-83-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-28-8 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-29-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-30-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN

AB Based on drug sensitivity data and extensive gene expression data, a model was constructed by multivariate anal. with the partial least squares method type 1. Further, the model was optimized using modeling power and genetic algorithm. Thereby, the degree of contribution of the resp. genes to drug sensitivity was detd. to select genes with a high degree of contribution. In addn., the levels of gene expression in specimens were analyzed, and then the drug sensitivity was predicted based on the model. The predicted values agreed well with those drug sensitivity values detd. exptl. The drug sensitivity-predicting method provided by the present invention enables assessment of the effectiveness of a drug prior to administration using small quantities of specimens assocd. With diseases such as cancer. Since this enables the selection of the most suitable drug for each patient, the present invention is very useful in

```
improving a patient's quality of life (QOL).
                            2003:737931 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                            139:255332
TITLE:
                            Method for selecting antitumor drug
                            sensitivity-determining factors and method for
                            predicting antitumor drug sensitivity using the
                            selected factors
                            Aoki, Yuko; Hasegawa, Kiyoshi; Ishii, Nobuya; Mori,
INVENTOR(S):
                            Kazushige
                            F. Hoffmann-La Roche A.-G., Switz.
PATENT ASSIGNEE(S):
SOURCE:
                            PCT Int. Appl., 81 pp.
                            CODEN: PIXXD2
DOCUMENT TYPE:
                            Patent
                            English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
                                               APPLICATION NO. DATE
     PATENT NO.
                       KIND DATE
     WO 2003076660 A1 20030918 WO 2002-JP2354 20020313
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
              GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL,
          PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.:
                                            WO 2002-JP2354 20020313
     . . assessment of the effectiveness of a drug prior to administration
     using small quantities of specimens assocd. with diseases such as
     cancer. Since this enables the selection of the most suitable
     drug for each patient, the present invention is very useful in.
ST
     antitumor drug sensitivity gene expression DNA microarray cancer
     cell
     Intestine, neoplasm
TT
         (colon; method for selecting antitumor drug sensitivity-detg. factors
         and predicting antitumor drug sensitivity using the selected factors)
IT
     Liver, neoplasm
         (hepatoma; method for selecting antitumor drug sensitivity-detg.
         factors and predicting antitumor drug sensitivity using the selected
         factors)
IT
     Antitumor agents
     Bladder, neoplasm
     DNA microarray technology
     Gene expression profiles, animal
     Human
     Lung, neoplasm
     Mammary gland, neoplasm
     Melanoma
       Neoplasm
     Ovary, neoplasm
     PCR (polymerase chain reaction)
     Pancreas, neoplasm
     Partial least squares
     Prostate gland, neoplasm
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Test kits

(method for selecting antitumor drug sensitivity-detg. factors and predicting antitumor drug sensitivity using the selected factors)

IT Nerve, neoplasm

(neuroblastoma; method for selecting antitumor drug sensitivity-detg. factors and predicting antitumor drug sensitivity using the selected factors)

IT Lung, neoplasm

(non-small-cell carcinoma; method for selecting antitumor drug sensitivity-detg. factors and predicting antitumor drug sensitivity using the selected factors)

IT 51-21-8, 5-FU 66-22-8, 2,4(1H,3H)-Pyrimidinedione, biological studies 147-94-4, Ara-C 2207-75-2, Potassium oxonate 2353-33-5, Decitabine 4291-63-8, Cladribine 7689-03-4, Camptothecin 3094-09-5, Furtulon 10540-29-1, Tamoxifen 15663-27-1, Cisplatin 17902-23-7, Tegafur 20830-81-3, Daunomycin 25316-40-9, Adriamycin 33069-62-4, Taxol 41575-94-4, Carboplatin 53714-56-0, Leuprorelin 56420-45-2, Epirubicin 58957-92-9, Idarubicin 61422-45-5, Carmofur 75607-67-9 82640-04-8, LY156758 90357-06-5, ZD 176334 91421-42-0, 9-Nitrocamptothecin 91421-43-1, 9-Aminocamptothecin 100286-90-6, CPT-11 103766-25-2, 5-Chloro-2, 4-dihydroxypyridine 105149-00-6, TZP4238 107868-30-4, 110417-88-4, Dolastatin 10 FCE24304 112809-51-5, CGS 20267 114977-28-5, Taxotere 115767-74-3, TAT59 119804-96-5, DMDC 120685-11-2, CGP41251 123884-00-4, Dolast n 126723-15-7, Dolastatin 14 145918-75-8, 120511-73-1, ZD 1033 123884-00-4, Dolastatin 15 123948-87-8, Topotecan 149606-27-9, TZT 1027 154361-50-9, Xeloda Troxacitabine 159776-69-9, 160237-25-2, BMS 184476 169869-90-3, DX-8951f Cemadotin 171179-06-9, 182133-25-1, LY353381 PD 158780 172903-00-3, BBR 3464 182167-03-9, 183319-69-9, CP 358774 184475-35-2, ZD 1839 186348-23-2, IDN 192185-68-5, R115777 189453-10-9, Epothilone D 193275-84-2, 195987-41-8, BMS 214662 SCH66336 204005-46-9, SU5416 212142-18-2, PTK787 212631-79-3, CI1040 219989-84-1, BMS 247550 220127-57-1, STI-571 220997-97-7, BN-80915 252916-29-3, SU6668 253863-00-2, L778123 **284461-73-0**, BAY 439006 427896-23-9, BMS 188797 443913-73-3, ZD6474 437755-78-7, GW 2016 601517-74-2, GW 2286 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(method for selecting antitumor drug sensitivity-detg. factors and predicting antitumor drug sensitivity using the selected factors)

IT **284461-73-0**, BAY 439006

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(method for selecting antitumor drug sensitivity-detg. factors and predicting antitumor drug sensitivity using the selected factors)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN GI

AΒ Aryl ureas, such as I [R = Cl, Br; R2 = OH, NH2, NHMe, NHCH2OH, alkoxy; n = 0, 1], were prepd. for use in pharmaceutical compns. for the treatment of raf kinase and p38 kinase mediated diseases. These ureas are useful for the treatment of inflammation, osteoporosis, angiogenesis disorders and hyper-proliferative disorders, such as cancer. Thus, urea I (R = C1, R2 = NHMe, n = 1) was prepd. with 57% yield by N-oxidn. of I (R = C1, R2 = NHMe, n = 0) using 3-chloroperbenzoic acid in CH2Cl2 and THF. The prepd. ureas were assayed for inhibition of p38 kinase and raf kinase, as well as for cancer cell growth

inhibition in human cancer cell lines, such as HCT116 and DLD-1.

2003:656745 HCAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 139:197377

Preparation of aryl ureas for therapeutic use as TITLE:

kinase inhibitors

Dumas, Jacques; Scott, William J.; Chien, Du-Schieng; INVENTOR(S):

Lee, Wendy; Bjorge, Susan; Musza, Laszlo L.; Nassar,

Ala; Riedl, Bernd

PATENT ASSIGNEE(S): Bayer Corporation, USA PCT Int. Appl., 64 pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent English LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. WO 2003068746 A1 20030821 WO 2003-US4109 20030211 AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,

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LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
             NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
             ML, MR, NE, SN, TD, TG
     US 2003216446
                            20031120
                                            US 2003-361859
                                                             20030211
                      A1
                                         US 2002-354937P P 20020211
PRIORITY APPLN. INFO.:
                         MARPAT 139:197377
OTHER SOURCE(S):
     . . for the treatment of raf kinase and p38 kinase mediated diseases.
     These ureas are useful for the treatment of inflammation,
     osteoporosis, angiogenesis disorders and hyper-proliferative
     disorders, such as cancer. Thus, urea I (R = C1, R2 = NHMe, n =
     1) was prepd. with 57% yield by N-oxidn. of. . . CH2Cl2 and THF. The
     prepd. ureas were assayed for inhibition of p38 kinase and raf kinase, as
     well as for cancer cell growth inhibition in human
     cancer cell lines, such as HCT116 and DLD-1.
ST
     aryl urea prepn kinase inhibitor; antitumor agent prepn aryl urea;
     inflammation treatment aryl urea prepn; osteoporosis treatment
     aryl urea prepn; cancer treatment aryl urea prepn; proliferative
     disorder treatment aryl urea prepn; angiogenesis inhibitor aryl urea prepn
IT
     Inflammation
      Neoplasm
       Osteoporosis
        (treatment; prepn. of aryl ureas for therapeutic use as kinase
        inhibitors)
     284461-74-1P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-carbamoyl(4-
TT
     pyridyloxy)phenyl]urea 284462-18-6P 583840-03-3P
     583840-04-4P
                    583840-09-9P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (prepn. of aryl ureas for therapeutic use as kinase inhibitors)
IT
     99586-65-9P, 4-Chloro-2-pyridinecarboxamide 284461-73-0P,
     N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)(4-
                              284462-80-2P
     pyridyloxy)phenyl]urea
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (prepn. of aryl ureas for therapeutic use as kinase inhibitors)
IT
     583840-03-3P
     RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic
     preparation); THU (Therapeutic use); BIOL (Biological study); PREP
     (Preparation); RACT (Reactant or reagent); USES (Uses)
        (prepn. of aryl ureas for therapeutic use as kinase inhibitors)
RN
     583840-03-3 HCAPLUS
     2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c
CN
     arbonyl]amino]phenoxy]-N-methyl-, 1-oxide (9CI) (CA INDEX NAME)
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DELACROIX

IT 284461-73-0P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)(4-pyridyloxy)phenyl]urea

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of aryl ureas for therapeutic use as kinase inhibitors)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN

2

AB Methods are provided for treating diseases assocd. with abnormal activity of kinases such as chronic myelogenous leukemia. The method comprises: administering a DNA methylation inhibitor to the patient in therapeutically effective amt.; and administering a kinase inhibitor such as imatinib mesylate to the patient in therapeutically effective amt., such that the in vivo activity of the kinase is reduced relative to that prior to the treatment. The method can be used to treat cancer assocd. with abnormal activity of kinases such as phosphatidylinositol 3'-kinase (P13K), protein kinases including serine/threonine kinases such as Raf kinases, protein kinase kinases such as MEK, and tyrosine kinases such as those in the epidermal growth factor receptor family (EGFR), platelet-derived growth factor receptor family (PDGFR), vascular endothelial growth factor receptor (VEGFR) family, nerve growth factor receptor family (NGFR), fibroblast growth factor receptor family (FGFR) insulin receptor family, ephrin receptor family, Met family, Ror family, c-kit family, Src family, Fes family, JAK family, Fak family, Btk family, Syk/ZAP-70 family, and Abl family.

ACCESSION NUMBER: 2003:633416 HCAPLUS

DOCUMENT NUMBER:

139:173786

TITLE:

Method for treating diseases associated with abnormal

kinase activity

INVENTOR(S):

Lyons, John; Rubinfeld, Joseph

PATENT ASSIGNEE(S):

Supergen, Inc., USA

SOURCE: PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent English

LANGUAGE:

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

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APPLICATION NO. DATE
    PATENT NO.
                KIND DATE
    W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
            RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
            CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
            NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
            ML, MR, NE, SN, TD, TG
                                      US 2002-71849
                   A1 20030807
                                                       20020207
    US 2003147813
                                   US 2002-71849 A1 20020207
US 2002-206854 A1 20020726
PRIORITY APPLN. INFO.:
```

AB . . . activity of the kinase is reduced relative to that prior to the treatment. The method can be used to treat **cancer** assocd. with abnormal activity of kinases such as phosphatidylinositol 3'-kinase (P13K), protein kinases including serine/threonine kinases such as Raf kinases,. . .

IT Digestive tract, neoplasm

Ovary, neoplasm

Pancreas, neoplasm

(carcinoma; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Intestine, neoplasm

(colon; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Neoplasm

(epithelial; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Neoplasm

(metastasis; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Mast cell

(neoplasm, mastocytoma; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Neck, anatomical

(neoplasm, squamous cell carcinoma; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Hematopoietic precursor cell

Mesenchyme

Osteoblast

(neoplasm; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Nerve, neoplasm

(neuroblastoma; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Nerve, neoplasm

(neuroma; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Lung, neoplasm

(non-small-cell carcinoma; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Thyroid gland, neoplasm

(papillary carcinoma; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Kidney, neoplasm

(renal cell carcinoma; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Neoplasm

(solid; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Head, neoplasm

(squamous cell carcinoma; treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

IT Anti-inflammatory agents

Antiasthmatics

Antitumor agents

Asthma

Autoimmune disease

Carcinoma

Drug interactions

Human

Inflammation

Leukemia

Lung, neoplasm

Lymphoma

Mammary gland, neoplasm

Multiple myeloma

Neoplasm

Prostate gland, neoplasm

Thyroid gland, neoplasm

(treatment of diseases assocd. with abnormal tyrosine kinase activity with tyrosine kinase inhibitor and DNA methylation inhibitor)

109511-58-2, U0126 154447-36-6, LY294002 167869-21-8, PD98059

212631-79-3, PD184352 **284461-73-0**, BAY 43-9006

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(treatment of diseases assocd. with abnormal kinase activity with serine/threonine kinase inhibitor and DNA methylation inhibitor)

IT **284461-73-0**, BAY 43-9006

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

IT

CN

(treatment of diseases assocd. with abnormal kinase activity with serine/threonine kinase inhibitor and DNA methylation inhibitor)

284461-73-0 HCAPLUS RN

> 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN

The invention discloses aryl urea compds. in combination with cytotoxic or AB cytostatic agents for use in treating raf kinase-mediated diseases, e.g. cancer.

ACCESSION NUMBER:

2003:454119 HCAPLUS

DOCUMENT NUMBER:

139:17567

TITLE:

Aryl urea compounds in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases

INVENTOR(S):

Carter, Christopher A.; Dumas, Jacques; Gibson, Neil; Hibner, Barbara; Humphrey, Rachel W.; Trail, Pamela; Vincent, Patrick W.; Zhai, Yifan; Riedl, Bernd; Khire, Uday; Lowinger, Timothy B.; Scott, William J.; Smith, Roger A.; Wood, Jill E.; Monahan, Mary-Katherine; Natero, Reina; Renick, Joel; Sibley, Robert N.

PATENT ASSIGNEE(S):

Bayer Corporation, USA; Bayer AG

SOURCE:

PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

1

PATENT INFORMATION:

PATENT NO.			KIND		DATE		APPLICATION NO. DATE											
				A: B:	A1 20030612 B1 20030821			WO 2002-US38439 20021203										
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	
		ŪG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	AZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	BG,	
		CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	
		PT,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	
		MR,	NE,	SN,	TD,	TG												
US	US 2003232765			A	1	2003	1218		US 2002-308187 20021203									

```
US 2001-334609P P 20011203
PRIORITY APPLN. INFO.:
                        MARPAT 139:17567
OTHER SOURCE(S):
     Aryl urea compounds in combination with other cytostatic or cytotoxic
     agents for treating human cancers and other raf kinase-mediated
     diseases
     . . . invention discloses aryl urea compds. in combination with
AB
     cytotoxic or cytostatic agents for use in treating raf kinase-mediated
     diseases, e.g. cancer.
     aryl urea cytotoxic agent combination cancer treatment; raf
ST
     kinase disease treatment aryl urea cytotoxic agent combination
TΤ
     Drug interactions
        (additive; aryl urea compds. in combination with other cytostatic or
        cytotoxic agents for treating human cancers and other raf
        kinase-mediated diseases)
IT
     Intercalation
        (agents, DNA intercalators; aryl urea compds. in combination with other
        cytostatic or cytotoxic agents for treating human cancers and
        other raf kinase-mediated diseases)
TΨ
     Growth factor receptors
     Hormone receptors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (agonists and antagonists; aryl urea compds. in combination with other
        cytostatic or cytotoxic agents for treating human cancers and
        other raf kinase-mediated diseases)
ΙT
     Alkylating agents, biological
     Antitumor agents
     Cytotoxic agents
     Drug delivery systems
     Head, neoplasm
     Human
     Kidney, neoplasm
     Leukemia
     Lung, neoplasm
     Mammary gland, neoplasm
     Melanoma
       Neoplasm
     Neuroglia, neoplasm
     Ovary, neoplasm
     Pancreas, neoplasm
     Prostate gland, neoplasm
     Stomach, neoplasm
        (aryl urea compds. in combination with other cytostatic or cytotoxic
        agents for treating human cancers and other raf
        kinase-mediated diseases)
IT
     Pancreas, neoplasm
        (carcinoma; aryl urea compds. in combination with other
        cytostatic or cytotoxic agents for treating human cancers and
        other raf kinase-mediated diseases)
IT
     Intestine, neoplasm
        (colon, carcinoma; aryl urea compds. in combination with
        other cytostatic or cytotoxic agents for treating human cancers
        and other raf kinase-mediated diseases)
ΙT
     Intestine, neoplasm
        (colon; aryl urea compds. in combination with other cytostatic or
        cytotoxic agents for treating human cancers and other raf
        kinase-mediated diseases)
ΙT
     Microtubule
```

(disruptors; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

(gels, topical; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Liver, neoplasm

(hepatoma; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

(infusions; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

(inhalants; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

(injections, i.m.; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

(injections, i.v.; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

(injections, s.c.; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT DNA

RL: BSU (Biological study, unclassified); BIOL (Biological study) (intercalators; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

(liqs.; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Neck, anatomical

(neoplasm; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Lung, neoplasm

(non-small-cell carcinoma; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

(oral; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

(parenterals; aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT Drug delivery systems

```
(sustained-release; aryl urea compds. in combination with other
       cytostatic or cytotoxic agents for treating human cancers and
       other raf kinase-mediated diseases)
IT
    Drug delivery systems
        (tablets; aryl urea compds. in combination with other cytostatic or
       cytotoxic agents for treating human cancers and other raf
       kinase-mediated diseases)
    139691-76-2, Raf kinase
IT
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (aryl urea compds. in combination with other cytostatic or cytotoxic
       agents for treating human cancers and other raf
       kinase-mediated diseases)
                          50-18-0, Cyclophosphamide 50-76-0, Actinomycin D
IT
    50-07-7, Mitomycin C
                              57-13-6D, Urea, aryl derivs. 57-22-7,
    51-21-8, 5-Fluorouracil
    Vincristine 59-05-2, Methotrexate 147-94-4, AraC 148-82-3, Melphalan
    154-93-8, BCNU 865-21-4, Vinblastine 4342-03-4, DTIC
                                                               5536-17-4, AraA
    13010-47-4, CCNU 15663-27-1, Cisplatin 23214-92-8, Doxorubicin
    25316-40-9, Doxorubicin hydrochloride 33069-62-4, Paclitaxel
    33419-42-0, Etoposide 41575-94-4, Carboplatin 71486-22-1, Vinorelbine
    95058-81-4, Gemcitabine 97682-44-5, Irinotecan 114977-28-5, Taxotere
    122111-03-9, Gemzar 125317-39-7, Navelbine 180288-69-1, Herceptin
    184475-35-2, Gefitinib 475207-59-1
    RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (aryl urea compds. in combination with other cytostatic or cytotoxic
       agents for treating human cancers and other raf
       kinase-mediated diseases)
                                       143180-75-0, DNA topoisomerase I
IT
    142805-56-9, DNA topoisomerase II
    RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors; aryl urea compds. in combination with other cytostatic or
       cytotoxic agents for treating human cancers and other raf
       kinase-mediated diseases)
ΙT
     475207-59-1
    RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (aryl urea compds. in combination with other cytostatic or cytotoxic
       agents for treating human cancers and other raf
       kinase-mediated diseases)
RN
     475207-59-1 HCAPLUS
    2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c
CN
     arbonyl]amino]phenoxy]-N-methyl-, mono(4-methylbenzenesulfonate) (9CI)
     (CA INDEX NAME)
    CM
         1
    CRN 284461-73-0
```

CMF C21 H16 C1 F3 N4 O3

CM 2

CRN 104-15-4 CMF C7 H8 O3 S

REFERENCE COUNT:

10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN

AB Materials and methods for treating certain cancers are described, preferably cancers that result from the up-regulation of the RAF-MEK-ERK pathway, and more preferably chronic myelogenous leukemia, and which cancer is preferably resistant to the inhibitor of Bcr-Abl tyrosine kinase, imatinib.

ACCESSION NUMBER:

2003:454071 HCAPLUS

DOCUMENT NUMBER:

139:30782

TITLE:

RAF-MEK-ERK pathway inhibitors to treat cancer

INVENTOR(S):

Lyons, John F.; Bollag, Gideon

PATENT ASSIGNEE(S):

Onyx Pharmaceuticals, Inc., USA

SOURCE:

PCT Int. Appl., 17 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PAT	PATENT NO. KIND			ND	DATE			APPLICATION NO.					DATE				
									_								
WO	WO 2003047523			A	2	20030612			WO 2002-US38402					20021203			
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,
		PL,	PT,	RO,	RU,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,
		UG,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	TJ,	TM
	RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	BG,
		CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,

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PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     US 2003125359
                            20030703
                                           US 2002-308721
                                                            20021203
                       A1
PRIORITY APPLN. INFO.:
                                        US 2001-336886P P 20011204
     RAF-MEK-ERK pathway inhibitors to treat cancer
     Materials and methods for treating certain cancers are
AΒ
     described, preferably cancers that result from the up-regulation
     of the RAF-MEK-ERK pathway, and more preferably chronic myelogenous
     leukemia, and which cancer is preferably resistant to the
     inhibitor of Bcr-Abl tyrosine kinase, imatinib.
ST
     RAF MEK ERK pathway inhibitor cancer treatment; antitumor
     chronic myelogenous leukemia RAF MEK ERK pathway inhibitor; imatinib
     resistance antitumor RAF MEK ERK pathway inhibitor
IT
     Antitumor agents
     Drug delivery systems
      Neoplasm
     Signal transduction, biological
        (RAF-MEK-ERK pathway inhibitors to treat cancer)
IT
     Drug resistance
        (antitumor; RAF-MEK-ERK pathway inhibitors to treat cancer)
IT
     Leukemia
        (chronic myelocytic; RAF-MEK-ERK pathway inhibitors to treat
        cancer)
IT
     Phosphorylation, biological
        (protein; RAF-MEK-ERK pathway inhibitors to treat cancer)
IT
     Antitumor agents
        (resistance to; RAF-MEK-ERK pathway inhibitors to treat cancer
IT
     284461-73-0, BAY 43-9006
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (BAY 43-9006; RAF-MEK-ERK pathway inhibitors to treat cancer)
IT
     139691-76-2, Raf kinase 142243-02-5, ERK kinase
                                                        146702-84-3, MEK
     kinase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (RAF-MEK-ERK pathway inhibitors to treat cancer)
IT
     212631-79-3, CI 1040
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (RAF-MEK-ERK pathway inhibitors to treat cancer)
IT
     138238-67-2, Bcr-abl tyrosine kinase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors, resistance to; RAF-MEK-ERK pathway inhibitors to treat
        cancer)
IT
     152459-95-5, Imatinib
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (resistance to; RAF-MEK-ERK pathway inhibitors to treat cancer
        )
IT
     284461-73-0, BAY 43-9006
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (BAY 43-9006; RAF-MEK-ERK pathway inhibitors to treat cancer)
RN
     284461-73-0 HCAPLUS
     2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c
     arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)
```

L9 ANSWER 9 OF 29 USPATFULL on STN

This invention relates to aryl urea compounds in combination with AB cytotoxic or cytostatic agents for use in treating raf kinase mediated diseases such as cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:330550 USPATFULL

TITLE: Aryl urea compounds in combination with other

cytostatic or cytotoxic agents for treating human

cancers

Carter, Christopher A., Guilford, CT, UNITED STATES INVENTOR(S):

Gibson, Neil, East Northport, NY, UNITED STATES

Hibner, Barbara, Madison, CT, UNITED STATES

Humphrey, Rachel W., Woodbridge, CT, UNITED STATES

Trail, Pamela, Madison, CT, UNITED STATES

Vincent, Patrick W., Cheshire, CT, UNITED STATES

Zhai, Yifan, Guilford, CT, UNITED STATES

PATENT ASSIGNEE(S): BAYER CORPORATION, Pittsburgh, PA, UNITED STATES (U.S.

corporation)

		NUMBER	KIND	DATE	
PATENT INFORMATION:	US	2003232765	A1	20031218	
APPLICATION INFO.:	US	2002-308187	A1	20021203	(10)

NUMBER DATE

PRIORITY INFORMATION: US 2001-334609P 20011203 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 5 Drawing Page(s)

LINE COUNT: 1005

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Aryl urea compounds in combination with other cytostatic or cytotoxic ΤI

agents for treating human cancers

. . aryl urea compounds in combination with cytotoxic or cytostatic AΒ

agents for use in treating raf kinase mediated diseases such as

cancer.

SUMM . . . urea compounds in combination with cytotoxic or cytostatic agents and their use in treating raf kinase mediated diseases such as cancer.

- SUMM [0003] The p21 oncogene, ras, is a major contributor to the development and progression of human solid cancers and is mutated in 30% of all human cancers (Bolton et al. Ann. Re. Med. Chem. 1994, 29, 165-174; Bos. Cancer Res. 1989, 49, 4682-9). In its normal, unmutated form, the ras protein is a key element of the signal transduction. . . Therefore, the protein delivers constitutive growth signals to downstream effectors such as the enzyme raf kinase. This leads to the cancerous growth of the cells which carry these mutants (Magnuson et al. Semin. Cancer Biol. 1994, 5, 247-53). It has been shown that inhibiting the effect of active ras by inhibiting the raf kinase. . . antisense oligodeoxynucleotides) has been correlated in vitro and in vivo with inhibition of the growth of a variety of human cancer types (Monia et al., Nat. Med. 1996, 2, 668-75).
- SUMM . . . raf kinase inhibitors represent an important group of chemotherapeutic agents for use in the treatment of a variety of different cancer types.
- (1) yield better efficacy in reducing the growth of a tumor or even eliminate the tumor as compared to administration of either agent alone, (2) provide for the administration of lesser amounts of the administered chemotherapeutic. . . than observed with single agent chemotherapies and certain other combined therapies, (4) provide for treating a broader spectrum of different cancer types in mammals, especially humans, (5) provide for a higher response rate among treated patients, (6) provide for a longer survival time among treated patients compared to standard chemotherapy treatments, (7) provide a longer time for tumor progression, and/or (8) yield efficacy and tolerability results at least as good as those of the agents used alone, compared to known instances where other cancer agent combinations produce antagonistic effects.
- DRWD [0006] FIG. 1 shows the response of established s.c. DLD-1 human colon tumor xenografts to Compound A and Camptosar alone and in combination.
- DRWD [0007] FIG. 2 shows the response of established s.c. MiaPaCa-2 human pancreatic tumor xenografts to Compound A and Gemzar alone and in combination.
- DRWD [0008] FIG. 3 shows the response of established s.c. NCI-H460 human NSCLC tumor xenografts to Compound A and Navelbine alone and in combination.
- DRWD [0009] FIG. 4 shows the response of established MX-1 mammary tumor xenografts to Compound A and DOX alone and in combination.
- DRWD [0010] FIG. 5 shows the response of established A549 non-small cell lung tumor xenografts to Compound A and Gefinitib alone and in combination.
- DETD . . . below) and (b) at least one other cytotoxic or cytostatic agent in amounts which are jointly effective for treating a cancer, where any component (a) or (b) can also be present in the form of a pharmaceutically acceptable salt if at. . .
- DETD [0036] The invention also relates to a method for treating a cancer that can be treated by administration of an aryl urea compound that targets raf kinase and at least one other. . . but not limited to colon, gastric, lung, pancreatic, ovarian, prostate, leukemia, melanoma, hepatocellular, renal, head and neck, glioma, and mammary cancers. Thus, the aryl urea compound is effective for raf kinase-mediated cancers. However, these compounds are also effective for cancers not mediated by raf kinase.

- DETD [0038] In a preferred embodiment, the present invention provides methods for treating a cancer in a mammal, especially a human patient, comprising administering an aryl urea compound in combination with a cytotoxic or cytostatic. . .
- DETD [0039] In a more preferred embodiment, the present invention provides a method for treating a **cancer** in a mammal, especially a human patient, comprising administering an aryl urea compound in combination with irinotecan.
- DETD [0040] In another preferred embodiment, the present invention provides a method for treating a **cancer** in a mammal, especially a human patient, comprising administering an aryl urea compound in combination with paclitaxel.
- DETD [0041] In another preferred embodiment, the present invention provides a method for treating a **cancer** in a mammal, especially a human patient, comprising administering an aryl urea compound in combination with vinorelbine.
- DETD [0042] In another preferred embodiment, the present invention provides a method for treating a **cancer** in a mammal, especially a human patient, comprising administering an aryl urea compound in combination with gefinitib.
- DETD [0043] In another preferred embodiment, the present invention provides a method for treating a **cancer** in a mammal, especially a human patient, comprising administering an aryl urea compound in combination with doxorubicin.
- DETD [0044] In another preferred embodiment, the present invention provides a method for treating a **cancer** in a mammal, especially a human patient, comprising administering an aryl urea compound in combination with gemcitabine.
- DETD [0045] In another preferred embodiment, the methods of the present invention can be used to treat a variety of human cancers, including but not limited to pancreatic, lung, colon, ovarian, prostate, leukemia, melanoma, hepatocellular, renal, head and neck, glioma, and mammary carcinomas.
- DETD . . . invention, the aryl urea compound can be administered simultaneously with a cytotoxic or cytostatic agent to a patient with a cancer, in the same formulation or, more typically in separate formulations and, often, using different administration routes. Administration can also be. . .
- DETD [0053] Further, the invention relates to a method of inhibiting proliferation of cancer cells comprising contacting cancer cells with a pharmaceutical preparation or product of the invention, especially a method of treating a proliferative disease comprising contacting a subject, cells, tissues or a body fluid of said subject, suspected of having a cancer with a pharmaceutical composition or product of this invention.
- DETD [0055] The term "cytotoxic" refers to an agent which can be administered to kill or eliminate a cancer cell. The term "cytostatic" refers to an agent which can be administered to restrain tumor proliferation rather than induce cytotoxic cytoreduction yielding an elimination of the cancer cell from the total viable cell population of the patient. The chemotherapeutic agents described herein, e.g., irinotecan, vinorelbine, gemcitabine, doxorubicin,. . . a cytostatic agent. These cytotoxic and cytostatic agents have gained wide spread use as chemotherapeutics in the treatment of various cancer types and are well known.
- DETD . . . a theory, it is believed that by blocking this enzyme in cells, damage occurs when the cell replicates, and the cancer growth

is thus controlled. The cytotoxic effect is believed due to double-stranded DNA damage produced during DNA synthesis when replication. . .

- DETD . . . for patients previously treated with 5-fluorouracil.

 Gemzar.RTM. is a pyrimidine analog that has a broad range of activity against solid tumors including but not limited to breast, ovarian, pancreatic, and lung carcinomas. It is believed to be incorporated into DNA of fast growing cancer cells, affecting replication. Gemzar.RTM. is a nucleoside analogue which disrupts DNA synthesis in S-phase cells and blocks the progression of. . .
- DETD . . . when the receptor is stimulated by binding EGF or TGF.alpha.. Iressa is orally bioavailable and has demonstrated preclinal efficacy against tumor models that simultaneously express EGFR and one of its ligands, TGF.alpha.. Iressa has also been shown to inhibit the in. . .
- DETD . . . intercalate in DNA and interact with DNA Topoisomerase II to induce double-stranded DNA breaks. DOX exhibits a broad spectrum of anti-tumor efficacy. DOX is clinically administered intravenously on an intermittent schedule. The primary route of elimination of DOX is through the. . .
- DETD [0077] The invention also encompasses kits for treating mammalian cancers. Such kits can be used to treat a patient with a raf kinase stimulated cancer as well as cancers not stimulated through raf kinase. The kit can comprise a single pharmaceutical formulation containing an aryl urea compound and a. agent in separate formulations. The kit can also include instructions for how to administer the compounds to a patient with cancer in need of treatment. The kit can be used to treat different cancer types which include but are not limited to colon, prostate, leukemia, melanoma, hepatocellular, renal, head and neck, glioma, lung, pancreatic, . .
- DETD . . . therapy of an aryl urea compound with the cytotoxic agents irinotecan, gemcitabine, vinorelbine, or paclitaxel has produced at least additive anti-tumor efficacy compared with that produced by administration of either the aryl urea compound or the cytotoxic agents administered alone. Generally,. . . with aryl urea compound raf kinase inhibitors will serve to (1) yield better efficacy in reducing the growth of a tumor or even eliminate the tumor as compared to administration of a single chemotherapeutic agent, (2) provide for the administration of lesser amounts of the administered. . . from larger doses of single chemotherapies and certain other combined therapies, (4) provide for treating a broader spectrum of different cancer types in mammals, especially humans, (5) provide for a higher response rate among treated patients, (6) provide for a longer survival time among treated patients compared to standard chemotherapy treatments, (7) provide a longer time for tumor progression, and/or (8) yield efficacy and tolerability results at least as good as those of the agents used alone, compared to known instances where other cancer agent combinations produce antagonist effects.
- DETD . . . about 300 mg/kg of total body weight. Also, the agents can also be administered in conventional amounts routinely used in cancer chemotherapy.
- DETD . . . Nor nu/nu female mice (Taconic Farms, Germantown, N.Y.) were used for all in vivo studies invovling the DLD-1 and NCI-H460 tumor models. Female CB-17 SCID nice (Taconic Farms, Germantown, N.Y.) were used for studies involving the Mia-PaCa-2 tumor

model. The mice were housed and maintained within the Comparative Medicine Department at Bayer Corporation, West Haven, Conn. in accordance. . .

DETD [0103] Tumor Lines

DETD [0104] The DLD-1 human colon carcinoma and the MiaPaCa-2 human pancreatic carcinoma were obtained from the American Type Tissue Culture Collection Repository. The MX-1 human mammary tumor was obtained from the NCI tumor repository.

Tumors were maintained as a serial in vivo passage of s.c. fragments (3.times.3 mm) implanted in the flank using a 12. . . DETD [0105] The NCI-H460 and A549 human non-small-cell lung carcinoma

DETD [0105] The NCI-H460 and A549 human non-small-cell lung carcinoma lines were obtained from the American Type Tissue Culture Collection Repository. The NCI-H460 cells were maintained and passaged in vitro.

DETD [0106] Tumor Xenograft Experiments

DETD [0107] Female mice were implanted s.c. with DLD-1, MX-1 or Mia-PaCa-2 tumor fragments from an in vivo passage. Studies with the NCI-H460 and A549 cells were initiated by harvesting cells from an. . s.c. in the right flank of each mouse. All treatment was initiated when all mice in the experiment had established tumors ranging in size from 100 to 150 mg. The general health of mice was monitored and mortality was recorded daily. Tumor dimensions and body weights were recorded twice a week starting with the first day of treatment. Animals were euthanized according. . .

[0108] Tumor weights were calculated using the equation DETD (1.times.w.sup.2)/2, where 1 and w refer to the larger and smaller dimensions collected at each measurement. In each experiment, an evaluation endpoint was selected such that the median time for the tumors in the control group to attain that size was slightly greater than the duration of treatment. Anti-tumor efficacy was measured as the incidence of complete regressions (CR) defined as tumors that are reduced to below the limit of measurement (3 mm) in both length and width, partial regressions (PR) defined as tumors that are reduced by more than 50% but less than 100% of their initial size, and percent tumor growth suppression (% TGS). TGS is calculated by the equation [(T-C)/C]*100, where T and C represent the times for the median tumors in the treated (T) and untreatred control (C) groups, respectively, to attain the evaluation size for that experiment.

DETD [0111] The most intensive combination chemotherapy anticipated in the clinical development of compound A for the treatment of cancer would involve daily administration of compound A administered throughout the period of time encompassing the intermittent administration of cytotoxic/cytostatic agents. . .

DETD . . . 80 mg/kg/dose. All treatment was initiated on Day 7 post-implant when all animals had small but established DLD-1 human colon tumor xenografts averaging 108 mg in size. Control tumors grew progressively in all animals with an average doubling time of 4.4 days. The evaluation endpoint used to calculate the growth delay parameters was time to three mass doublings. The median time for the tumors in the untreated control group to attain that size was 10.4 days.

DETD . . . weight loss and no lethality. The 40 mg/kg dose level produced a TGS of 71% with no complete or partial tumor regressions.

DETD . . . There was no increase in weight loss and no lethality associated with the combination of Camptosar.RTM. with compound A. The anti-tumor efficacy of the concurrent therapy was at least

- additive producing a 229% TGS. This was associated with 3 PR's.

 . . . at 40 mg/kg/dose. All treatment was initiated on Day 7
 post-implant when all animals had small but established MiaPaCa-human
 pancreatic tumor xenografts averaging 108 mg in size. Control
 tumors grew progressively in all animals with an average
 doubling time of 4.1 days. The evaluation endpoint used to calculate the
 growth delay parameters was time to two mass doublings. The median time
 for the tumors in the untreated control group to attain that
 size was 5.8 days.
- DETD . . . with no weight loss and no lethality. This dose level produced a TGS of 154% with no complete or partial tumor regressions.

 Compound A was also well tolerated as a single agent producing no significant weight loss and no lethality at. . . 112%. There was no increase in weight loss and no lethality associated with the combination of Gemzar.RTM. with Compound A. The anti-tumor efficacy of the concurrent therapy of 120 mg/kg Gemzar and 40 mg/kg Compound A was at least additive producing a. . .
- DETD . . . All treatment was initiated on Day 6 post-implant when all animals had small but established NCI-H460 human non-small cell lung tumor xenografts averaging 100 mg in size. Control tumors grew progressively in all animals with an average doubling time of 3.1 days. The evaluation endpoint used to calculate the growth delay parameters was time to three mass doublings. The median time for the tumors in the untreated control group to attain that size was 7.4 days. The 6.7 mg/kg dose level of Navelbine was. . .
- DETD . . . q4d.times.3 schedule at 4 mg/kg/dose. All treatments were initiated on Day 6 post-implant when all animals had small but established tumors averaging 66 mg in size. Control tumors grew progressively in all animals with an average doubling time of 3.7 days. The evaluation endpoint used to calculate the growth delay parameters was time to four mass doublings. The median time for the tumors in the untreated control group to attain that size was 14.5 days. The 4 mg/kg dose level of DOX was. . .
- DETD . . . All treatment was initiated on Day 15 post-implant when all animals had small but established A549 human non-small cell lung tumor xenografts averaging 110 mg in size. Control tumors grew progressively in all animals with an average doubling time of 10.5 days. The evaluation endpoint used to calculate the. . .
- CLM What is claimed is:

 5. A method for treating a cancer comprising administering a therapeutically effective amount of a composition comprising N-(4-chloro-3-(trifluoromethyl)phenyl-N'-(4-(2-(N-methylcarbamoyl)-4-pyridoxy)phenyl)urea or a pharmaceutically acceptable salt thereof and a cytotoxic.

 7. The method of claim 5, wherein said cancer is mediated by
 - 8. The method of claim 5, wherein said **cancer** is colon, gastric, lung, pancreatic, ovarian, prostate, leukemia, melanoma, hepatocellular, renal, glioma, mammary, or head and neck **cancer**
- IT 50-07-7, Mitomycin C 50-18-0, Cyclophosphamide 50-76-0, Actinomycin D 51-21-8, 5-Fluorouracil 57-13-6D, Urea, aryl derivs. 57-22-7, Vincristine 59-05-2, Methotrexate 147-94-4, AraC 148-82-3, Melphalan 154-93-8, BCNU 865-21-4, Vinblastine 4342-03-4, DTIC

raf kinase.

13010-47-4, CCNU 15663-27-1, Cisplatin 23214-92-8, 5536-17-4, AraA 25316-40-9, Doxorubicin hydrochloride Doxorubicin 33069-62-4, Paclitaxel 33419-42-0, Etoposide 41575-94-4, Carboplatin 71486-22-1, Vinorelbine 95058-81-4, Gemcitabine 97682-44-5, 114977-28-5, Taxotere 122111-03-9, Gemzar 125317-39-7, Irinotecan 184475-35-2, Gefitinib Navelbine 180288-69-1, Herceptin 475207-59-1

(aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

IT 475207-59-1

(aryl urea compds. in combination with other cytostatic or cytotoxic agents for treating human cancers and other raf kinase-mediated diseases)

RN 475207-59-1 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl-, mono(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

CM 1

CRN 284461-73-0 CMF C21 H16 C1 F3 N4 O3

CM 2

CRN 104-15-4 CMF C7 H8 O3 S

L9 ANSWER 10 OF 29 USPATFULL on STN

AB This invention relates to the use of a group of aryl ureas in treating raf mediated diseases, and pharmaceutical compositions for use in such therapy of the formula

A--D--B wherein

D is --NH--C(O) --NH--

A is a substituted moiety of the formula: --L--(M--L.sup.1).sub.q, and

B is a substituted or unsubstituted up to tricyclic aryl or heteroaryl moiety with a t least one 6-member cyclic structure bound directly to D containing 0-4 members of the group consisting of nitrogen oxygen and sulfur.

L is a 5-6 membered cyclic structure bound directly to D,

L.sup.1 comprises a substituted cyclic moiety having at least 5 members

M is a bridging group having at least one atom and q is an integer of from 1-3.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2003:201617 USPATFULL

TITLE:

Method and/or process for preparing omega-carboxyaryl substituted diphenyl ureas as raf kinas inhibitors Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF

INVENTOR(S):

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Lowinger, Timothy B., Wuppertal, GERMANY, FEDERAL

REPUBLIC OF

Scott, William J., Guilford, CT, UNITED STATES Smith, Roger A., Madison, CT, UNITED STATES Wood, Jill E., North Haven, CT, UNITED STATES

NUMBER	KIND	DATE

PATENT INFORMATION: APPLICATION INFO.:

US 2003139605 A1 20030724

RELATED APPLN. INFO.:

US 2002-71248 A1 20020211 (10)Continuation of Ser. No. US 2001-948915, filed on 10

Sep 2001, PENDING Continuation of Ser. No. US 1999-425228, filed on 22 Oct 1999, ABANDONED

Continuation-in-part of Ser. No. US 1999-257266, filed

on 25 Feb 1999, ABANDONED

NUMBER	DATE

PRIORITY INFORMATION:

US 1999-115877P 19990113 (60) US 1999-115878P 19990113 (60)

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE:

MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

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NUMBER OF CLAIMS: EXEMPLARY CLAIM:

25 1

LINE COUNT:

3287

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM

[0003] The p21.sup.ras oncogene is a major contributor to the development and progression of human solid cancers and is mutated in 30% of all human cancers (Bolton et al. Ann. Rep.

Med. Chem. 1994, 29, 165-74; Bos. Cancer Res. 1989, 49,

4682-9). In its normal, unmutated form, the ras protein is a key element

of the signal transduction. . . GDP-bound resting form is strictly controlled by ras' endogenous GTPase activity and other regulatory proteins. In the ras mutants in cancer cells, the endogenous GTPase activity is alleviated and, therefore, the protein delivers constitutive growth signals to downstream effectors such as the enzyme raf kinase. This leads to the cancerous growth of the cells which carry these mutants (Magnuson et al. Semin. Cancer Biol. 1994, 5, 247-53). It has been shown that inhibiting the effect of active ras by inhibiting the raf kinase. . . antisense oligodeoxynucleotides) has been correlated in vitro and in vivo with inhibition of the growth of a variety of human tumor types (Monia et al., Nat. Med. 1996, 2, 668-75).

SUMM

- the raf kinase pathway is indicated, e.g., in the treatment of tumors and/or cancerous cell growth mediated by raf kinase. In particular, the compounds are useful in the treatment of human or animal solid cancers, e.g., murine cancer, since the progression of these cancers is dependent upon the ras protein signal transduction cascade and therefore susceptible to treatment by interruption of the cascade, i.e., by inhibiting raf kinase. Accordingly, the compounds of the invention are useful in treating cancers, including solid cancers, such as, for example, carcinomas (e.g., of the lungs, pancreas, thyroid, bladder or colon), myeloid disorders (e.g., myeloid leukemia) or adenomas (e.g., villous colon adenoma).
- SUMM . . . is directed to compounds which inhibit the enzyme raf kinase and also compounds, compositions and methods for the treatment of cancerous cell growth mediated by raf kinase wherein a compound of Formula I is administered or pharmaceutically acceptable salt thereof.
- SUMM [0056] The invention also relates to a method of treating or preventing cancer and other hyperproliferative disorders by administering a compound of the invention, or a pharmaceutical composition comprising one or more compounds. . .
- SUMM . . . Optional anti-proliferative agents which can be added to the composition include but are not limited to compounds listed on the cancer chemotherapy drug regimens in the 11.sup.th Edition of the Merck Index, (1996), which is hereby incorporated by reference, such as. . .
- SUMM . . . composition of the invention include but are not limited to those compounds acknowldeged to be used in the treatment of neoplastic diseases in Goodman and Gilman's The Pharmacological Basis of Therapeutics (Ninth Edition), editor Molinoff et al., publ. by McGraw-Hill, pages. . .
- SUMM [0059] Other anti-proliferative agents suitable for use with the composition of the invention include but are not limited to other anti-cancer agents such as epothilone, irinotecan, raloxifen and topotecan.
- SUMM [0060] Cancer and hyperproliferative disorders are defined as follows. These disorders include but are not limited to solid tumors, such as cancers of the breast, respiratory tract, brain, reproductive organs, digestive tract, urinary tract, eye, liver, skin, head and neck, thyroid, parathyroid and their distant metastases. Those disorders also include lymphomas, sarcomas, and leukemias.
- SUMM [0061] Examples of breast cancer include, but are not limited to invasive ductal carcinoma, invasive lobular

carcinoma, ductal carcinoma in situ, and lobular carcinoma in situ.

- SUMM [0062] Examples of cancers of the respiratory tract include, but are not limited to small-cell and non-small-cell lung carcinoma, as well as bronchial adenoma and pleuropulmonary blastoma.
- SUMM [0063] Examples of brain cancers include, but are not limited to brain stem and hypophtalmic glioma, cerebellar and cerebral astrocytoma, medulloblastoma, ependymoma, as well as neuroectodermal and pineal tumor.
- SUMM [0064] Tumors of the male reproductive organs include, but are not limited to prostate and testicular cancer.
- SUMM [0065] Tumors of the female reproductive organs include, but are not limited to endometrial, cervical, ovarian, vaginal, and vulvar cancer, as well as sarcoma of the uterus.
- SUMM [0066] Tumors of the digestive tract include, but are not limited to anal, colon, colorectal, esophageal, gallblader, gastric, pancreatic, rectal, small-intestine, and salivary gland cancers
- SUMM [0067] Tumors of the urinary tract include, but are not limited to bladder, penile, kidney, renal pelvis, ureter, and urethral cancers.
- SUMM [0068] Eye cancers include, but are not limited to intraocular melanoma and retinoblastoma.
- SUMM [0069] Examples of liver cancers include, but are not limited to hepatocellular carcinoma (liver cell carcinomas with or without fibrolamellar variant), cholangiocarcinoma (intrahepatic bile duct carcinoma), and mixed hepatocellular cholangiocarcinoma.
- SUMM [0070] Skin cancers include, but are not limited to squamous cell carcinoma, Kaposi's sarcoma, malignant melanoma, Merkel cell skin cancer, and non-melanoma skin cancer.
- SUMM [0071] Head-and-neck cancers include, but are not limited to laryngeal/hypopharyngeal/nasopharyngeal/oropharyngeal cancer, and lip and oral cavity cancer. Lymphomas include, but are not limited to AIDS-related lymphoma, non-Hodgkin's lymphoma, cutaneous T-cell lymphoma, Hodgkin's disease, and lymphoma of the. . .
- SUMM . . . with aryl urea compound raf kinase inhibitors will serve to (1) yield better efficacy in reducing the growth of a tumor or even eliminate the tumor as compared to administration of either agent alone, (2) provide for the administration of lesser amounts of the administered chemotherapeutic. . . than observed with single agent chemotherapies and certain other combined therapies, (4) provide for treating a broader spectrum of different cancer types in mammals, especially humans, (5) provide for a higher response rate among treated patients, (6) provide for a longer survival time among treated patients compared to standard chemotherapy treatments, (7) provide a longer time for tumor progression, and/or (8) yield efficacy and tolerability results at least as good as those of the agents used alone, compared to known instances where other cancer agent combinations produce antagonistic effects.
- SUMM . . . the invention (b) at least one other cytotoxic or cytostatic agent in amounts which are jointly effective for treating a cancer, where any component (a) or (b) can also be present in the form of a pharmaceutically acceptable salt if at. . .
- SUMM [0077] The invention also relates to a method for treating a cancer that can be treated by administration of a compound

according to the invention and at least one other chemotherapeutic agent. . . but not limited to colon, gastric, lung, pancreatic, ovarian, prostate, leukemia, melanoma, hepatocellular, renal, head and neck, glioma, and mammary cancers. Thus, the compound according to the invention is effective for raf kinase-mediated cancers. However, these compounds are also effective for cancers not mediated by raf kinase.

- SUMM [0079] The present invention provides methods for treating a cancer in a mammal, especially a human patient, comprising administering an a compound according to the invention in combination with a. . .
- SUMM [0080] In another embodiment, the methods of the present invention can be used to treat a variety of human cancers, including but not limited to pancreatic, lung, colon, ovarian, prostate, leukemia, melanoma, hepatocellular, renal, head and neck, glioma, and mammary carcinomas.
- SUMM . . . compound according to the invention can be administered simultaneously with a cytotoxic or cytostatic agent to a patient with a cancer, in the same formulation or, more typically in separate formulations and, often, using different administration routes. Administration can also be. . .
- SUMM [0087] Further, the invention relates to a method of inhibiting proliferation of cancer cells comprising contacting cancer cells with a pharmaceutical preparation or product of the invention, especially a method of treating a proliferative disease comprising contacting a subject, cells, tissues or a body fluid of said subject, suspected of having a cancer with a pharmaceutical composition or product of this invention.
- SUMM [0090] The term "cytotoxic" refers to an agent which can be administered to kill or eliminate a cancer cell. The term "cytostatic" refers to an agent which can be administered to restrain tumor proliferation rather than induce cytotoxic cytoreduction yielding an elimination of the cancer cell from the total viable cell population of the patient. The chemotherapeutic agents described herein, e.g., irinotecan, vinorelbine, gemcitabine, and. . . considered cytotoxic agents. These cytotoxic and cytostatic agents have gained wide spread use as chemotherapeutics in the treatment of various cancer types and are well known.
- DETD [0438] For in vitro growth assay, human tumor cell lines, including but not limited to HCT116 and DLD-1, containing mutated K-ras genes are used in standard proliferation assays for anchorage dependent growth on plastic or anchorage independent growth in soft agar. Human tumor cell lines were obtained from ATCC (Rockville Md.) and maintained in RPMI with 10% heat inactivated fetal bovine serum and. .
- DETD [0442] An in vivo assay of the inhibitory effect of the compounds on tumors (e.g., solid cancers) mediated by raf kinase can be performed as follows:
- DETD . . . mice are dosed i.p., i.v. or p.o. at 10, 30, 100, or 300 mg/Kg beginning on approximately day 10, when tumor size is between 50-100 mg. Animals are dosed for 14 consecutive days; tumor size is monitored with calipers twice a week.
- DETD [0444] The inhibitory effect of the compounds on raf kinase and therefore on tumors (e.g., solid cancers) mediated by raf kinase can further be demonstrated in vivo according to the technique of Monia et al. (Nat. Med.. . .
- CLM What is claimed is:

- 22. A method of treating or preventing **osteoporosis**, inflammation, and angiogenesis disorders, with the exclusion of **cancer**, in a mammal by administering an effective amount of a compound of claim 1 to said mammal.
- 23. A method of treating liver **cancer** in a mammal by administering an effective amount of a compound of claim 1 to said mammal.
- 24. A method as in claim 24, wherein the liver **cancer** is hepatocellular **carcinoma**, cholangiocarcinoma, and mixed hepatocellular cholangiocarcinoma.

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IT
      228418-48-2P
                     284461-33-2P
                                     284461-34-3P
                                                    284461-35-4P
                                                                    284461-36-5P
                     284461-38-7P
                                     284461-39-8P
                                                    284461-40-1P
                                                                    284461-41-2P
      284461-37-6P
      284461-42-3P
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      284461-47-8P
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      284462-36-8P
                     284462-70-0P
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(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

IT 284461-73-0P 284461-78-5P 284461-80-9P

284461-83-2P 284462-28-8P 284462-29-9P

284462-30-2P

(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

- RN 284461-73-0 USPATFULL
- CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284461-83-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-28-8 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-29-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-30-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 11 OF 29 USPATFULL on STN

AB Materials and methods for treating certain cancers are described, preferably cancers that result from the up-regulation of the RAF-MEK-ERK pathway, and more preferably chronic myelogenous leukemia, and which cancer is preferably resistant to the inhibition of the Bcr-Abl tyrosine kinase, imatinib.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2003:181526 USPATFULL

TITLE:

RAF-MEK-ERK pathway inhibitors to treat cancer

INVENTOR(S):

Lyons, John F., Moraga, CA, UNITED STATES Bollag, Gideon, Hercules, CA, UNITED STATES

NUMBER

KIND

DATE

US 2003125359 A1 US 2002-308721 A1 20030703 PATENT INFORMATION:

APPLICATION INFO.: 20021203 (10)

NUMBER DATE

US 2001-336886P 20011204 (60) PRIORITY INFORMATION:

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

Gregory Giotta, Ph.D., Vice President and Chief Legal LEGAL REPRESENTATIVE:

Counsel, ONYX Pharmaceuticals, Inc., 3031 Research

Drive, Richmond, CA, 94806

NUMBER OF CLAIMS: EXEMPLARY CLAIM:

NUMBER OF DRAWINGS: 5 Drawing Page(s)

LINE COUNT: 373

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

RAF-MEK-ERK pathway inhibitors to treat cancer ΤI

AΒ Materials and methods for treating certain cancers are described, preferably cancers that result from the up-regulation of the RAF-MEK-ERK pathway, and more preferably chronic myelogenous leukemia, and which cancer is preferably resistant to the inhibition of the Bcr-Abl tyrosine kinase, imatinib.

[0001] The invention described herein is in the field of cancer SUMM therapy, and preferably for the treatment of chronic myelogenous leukemia.

[0002] A goal of modem cancer therapy is to identify molecules SUMM in signal transduction pathways that affect cell growth, and particularly those that cause a normal cell to become cancerous . One such pathway is the RAF-MEK-ERK pathway, and the up-regulation of one or more of its members is thought to be responsible for a number of cancers. For example, patients with chronic myelogenous leukemia, herein after referred to as CML, who are in either the chronic

SUMM [0004] The Abl kinase was chosen as a molecular target in the treatment against cancer since 95% of patients with CML have activation of the Abl pathway that occurs through chromosomal translocations that

[0005] The invention described herein presents methods and compositions SUMM for treating cancers that involve up-regulation of one or more molecules in the pathway: RAF-MEK-ERK.

SUMM . . . is a description of inhibitors of the RAF-MEK-ERK pathway that are beneficially applied to the treatment of certain forms of cancer, preferably CML, and more preferably to those forms of CML that are resistant to Bcr-Abl kinase inhibitors, and most preferably. . .

[0011] FIG. 1 shows the RAF-MEK-ERK pathway that becomes up-regulated in DRWD certain cancer cells, including chronic myelogenous leukemia. Also shown are the compounds BAY 43-9006, and CI-1040, and the proteins in the pathway. . .

DETD [0017] Based on the pathway shown in FIG. 1, it will be appreciated that in cancers where Raf, MEK, or ERK are up-regulated, compounds that inhibit the activities of these molecules will have beneficial effects for treating such cancers. An example of one such cancer, also shown in FIG. 1, is chronic myelogenous leukemia. Thus, treating patients with non-toxic doses of, preferably, 200-400 mg and higher of the Raf kinase inhibitor BAY 43-9006 (Endocr. Relat.

Cancer 8, 219 [2001]) will result in remissions, or minimally stabilization of the growth of the cancer. Furthermore, treating patients with non-toxic doses of, preferably, 200-400 mg and higher of the MEK inhibitor PD184352 (now designated CI-1040, Oncogene 19, 6594 (2000) will also lead to remissions or cancer growth stabilization in these patients.

DETD . . . be used alone, or in combination. They may also be used in combination with other compounds known to affect particular cancers where the RAF-MEK-ERK pathway is up-regulated. For example, the drug imatinib (Gleevec.TM.) is used to treat CML patients; thus, imatinib. . .

DETD . . . with imatinib. Preference is given to a pharmaceutical composition that is suitable for administration to a human suffering from a cancer that is responsive to inhibition of a protein tyrosine kinase. Preferably the cancer is CML, and more preferably it is imatinib resistant CML which composition comprises an inhibitor, or a salt thereof where. . .

DETD . . . (obtained from Dr. Charles Sawyers, University of California at Los Angeles, and described by Shah, N., et al. (August 2002)

Cancer Cell, vol. 2: pages 117-125). The experiment was conducted as follows. On day 1, 2.times.10.sup.6 cells were plated in a.

CLM What is claimed is:

1. A method for treating a patient suffering from cancer,
wherein said patients' cancer exhibits up-regulation of the
RAF-MEK-ERK pathway, comprising administering to said cancer
patient an effective dose of an inhibitor of said RAF-MEK-ERK pathway.

2. A method as described in claim 1, wherein said ${f cancer}$ is CML.

3. A method as described in claim 2, wherein said CML cancer is resistant to an inhibitor of Bcr-Abl tyrosine kinase.

4. A method as described in claim 3, wherein said CML cancer is resistant to imatinib.

IT **284461-73-0**, BAY 43-9006

(BAY 43-9006; RAF-MEK-ERK pathway inhibitors to treat cancer)

IT 284461-73-0, BAY 43-9006

(BAY 43-9006; RAF-MEK-ERK pathway inhibitors to treat cancer)

RN 284461-73-0 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

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L9
     ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN
     A review. Bayer and Onyx are developing BAY-43-9006, an oral cytostatic
AΒ
     Raf kinase inhibitor for the potential treatment of colorectal and breast
     cancers, hepatocellular carcinoma and non-small-cell
     lung cancer, in addn. to acute myelogenous leukemia,
     myelodysplastic syndrome and other cancers. A US IND was filed
     in May 2000 and by Feb. 2003 BAY-43-9006 was in phase II trials, with
     phase III trials expected to begin later in 2003.
                         2003:736198 HCAPLUS
ACCESSION NUMBER:
                       139:301125
DOCUMENT NUMBER:
TITLE:
                         BAY-43-9006 (Bayer/Onyx)
AUTHOR(S):
                         Lee, John T.; McCubrey, James A.
CORPORATE SOURCE:
                         Department of Microbiology and Immunology, Brody
                         School of Medicine at East Carolina University,
                         Greenville, NC, 27858-4353, USA
SOURCE:
                         Current Opinion in Investigational Drugs (Thomson
                         Current Drugs) (2003), 4(6), 757-763
                         CODEN: COIDAZ; ISSN: 1472-4472
PUBLISHER:
                         Thomson Current Drugs
DOCUMENT TYPE:
                         Journal; General Review
LANGUAGE:
                         English
             Bayer and Onyx are developing BAY-43-9006, an oral cytostatic Raf
     kinase inhibitor for the potential treatment of colorectal and breast
     cancers, hepatocellular carcinoma and non-small-cell
     lung cancer, in addn. to acute myelogenous leukemia,
     myelodysplastic syndrome and other cancers. A US IND was filed
     in May 2000 and by Feb. 2003 BAY-43-9006 was in phase II trials, with
     phase.
ST
     review antitumor BAY439006 AML breast colorectal liver lung cancer
IT
     Cytotoxic agents
     Mammary gland, neoplasm
     Myelodysplastic syndromes
        (BAY 43-9006 for treatment of cancer patients)
IT
     Antitumor agents
        (acute myelogenous leukemia; BAY 43-9006 for treatment of
        cancer patients)
IT
     Leukemia
        (acute myelogenous; BAY 43-9006 for treatment of cancer
        patients)
IT
     Antitumor agents
        (breast cancer; BAY 43-9006 for treatment of cancer
        patients)
IT
     Antitumor agents
        (colorectal cancer; BAY 43-9006 for treatment of
        cancer patients)
TT
     Intestine, neoplasm
        (colorectal; BAY 43-9006 for treatment of cancer patients)
IT
     Liver, neoplasm
        (hepatoma; BAY 43-9006 for treatment of cancer patients)
ΙT
     Antitumor agents
        (liver hepatoma; BAY 43-9006 for treatment of cancer
        patients)
ΙT
     Antitumor agents
        (myelodysplastic syndrome; BAY 43-9006 for treatment of cancer
        patients)
IT
     Lung, neoplasm
```

(non-small-cell carcinoma; BAY 43-9006 for treatment of cancer patients)

IT Antitumor agents

(non-small-cell lung carcinoma; BAY 43-9006 for treatment of cancer patients)

IT **284461-73-0**, BAY 43-9006

RL: ADV (Adverse effect, including toxicity); DMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (BAY 43-9006 for treatment of cancer patients)

IT 139691-76-2, Raf kinase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitor; BAY 43-9006 for treatment of cancer patients)

IT **284461-73-0**, BAY 43-9006

RL: ADV (Adverse effect, including toxicity); DMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(BAY 43-9006 for treatment of cancer patients)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN

AB Objective: The primary objective of this phase I study was to define the safety profile of BAY 43-9006 administered in combination with doxorubicin. Patients and methods: Twenty-nine patients with advanced, refractory solid tumors were treated with doxorubicin (60mg/m2) every 3 wk for 6 consecutive cycles. BAY 43-9006 in combination with doxorubicin chemotherapy was administered at 3 dose levels. Results: Toxicity and response were evaluable in a total of 24 out of 29 enrolled patients. Dose-limiting toxicity was obsd. at various dose levels. Doxorubicin plasma Cmax/AUC values increased on escalating the dose of BAY 43-9006. Patients with liver metastases and elevated values of AST and conjugated bilirubin, compared to patients with normal hepatic function, showed a higher AUC for doxorubicin at all dose levels. Conclusions: Our data suggest a pharmacol. interaction of BAY 43-9006 at DL 400 mg bid with doxorubicin resulting in significantly increased AUC for doxorubicin.

ACCESSION NUMBER:

2004:12708 HCAPLUS

TITLE:

A Phase I clinical and pharmacokinetic study of the Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with doxorubicin in patients with solid

tumors

Richly, H.; Kupsch, P.; Passage, K.; Grubert, M.; AUTHOR(S):

Hilger, R. A.; Kredtke, S.; Voliotis, D.; Scheulen, M.

E.; Seeber, S.; Strumberg, D.

CORPORATE SOURCE:

West German Cancer Center, University of Essen, Essen,

Germany

SOURCE:

International Journal of Clinical Pharmacology and

Therapeutics (2003), 41(12), 620-621

CODEN: ICTHEK; ISSN: 0946-1965

PUBLISHER:

Dustri-Verlag Dr. Karl Feistle

DOCUMENT TYPE:

Journal

LANGUAGE: English

- and pharmacokinetic study of the Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with doxorubicin in patients with solid tumors
- . the safety profile of BAY 43-9006 administered in combination AB with doxorubicin. Patients and methods: Twenty-nine patients with advanced, refractory solid tumors were treated with doxorubicin (60mg/m2) every 3 wk for 6 consecutive cycles. BAY 43-9006 in combination with doxorubicin chemotherapy was. . . obsd. at various dose levels. Doxorubicin plasma Cmax/AUC values increased on escalating the dose of BAY 43-9006. Patients with liver metastases and elevated values of AST and conjugated bilirubin, compared to patients with normal hepatic function, showed a higher AUC for.
- antitumor BAY439006 doxorubicin pharmacokinetic drug interaction solid ST tumor
- ITAntitumor agents

Human

(clin. and pharmacokinetic study of Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with doxorubicin in patients with solid tumors)

IT Drug interactions

(pharmacokinetic; clin. and pharmacokinetic study of Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with doxorubicin in patients with solid tumors)

TΤ Neoplasm

> (solid; clin. and pharmacokinetic study of Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with doxorubicin in patients with solid tumors)

IT 23214-92-8, Doxorubicin

> RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(clin. and pharmacokinetic study of Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with doxorubicin in patients with solid tumors)

IT 284461-73-0, BAY 43-9006

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (clin. and pharmacokinetic study of Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with doxorubicin in patients with solid tumors)

139691-76-2, Raf kinase ΙT

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitor; clin. and pharmacokinetic study of Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with doxorubicin in patients with solid tumors)

IT 284461-73-0, BAY 43-9006

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (clin. and pharmacokinetic study of Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with doxorubicin in patients with solid tumors)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN

Classical cytotoxic anticancer drugs generally have specific actions but AB also interfere with signalling pathways. A logical approach is therefore to combine the Raf kinase inhibitor (RKI) with classical cytotoxic agents since recent work has shown that the RKI BAY 43-9006 and CPT-11 have additive or synergistic actions. Objective: Because a pharmacol. drug-drug interaction cannot be ruled out, interaction studies were started using the RKI BAY 43-9006 in combination with the most important anticancer drugs, such as CPT-11. Patients and methods: The study protocol included three groups of 6 patients with solid tumors given different RKI doses and the same dosage of CPT-11. Blood samples for measurement of CPT-11 and SN-38 were obtained both during and in the absence of RKI treatment. Results: Ests. of toxicity, response and pharmacokinetics during the first RKI dose could be made in a total of 9/18 patients. All symptoms of toxicity were considered to be due to CPT-11 or RKI. The PK evaluation showed no significant differences for CPT-11 and SN-38, with or without RKI. Conclusions: The combination CPT-11 and SN-38 PK is not significantly influenced by the addn. of RKI. There is no indication that the PK of RKI are influenced significantly by CPT-11 and SN-38.

ACCESSION NUMBER: 2004:12707 HCAPLUS

TITLE: Drug-drug interaction pharmacokinetic study with the

Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with irinotecan (CPT-11) in patients with

solid tumors

AUTHOR(S): Mross, K.; Steinbild, S.; Baas, F.; Reil, M.; Buss,

P.; Mersmann, S.; Voliotis, D.; Schwartz, B.; Brendel,

Ε.

CORPORATE SOURCE: Tumor Biology Center at the Albert-Ludwigs-University

Freiburg, Leverkusen, Germany

SOURCE: International Journal of Clinical Pharmacology and

Therapeutics (2003), 41(12), 618-619

CODEN: ICTHEK; ISSN: 0946-1965

PUBLISHER: Dustri-Verlag Dr. Karl Feistle

DOCUMENT TYPE:

Journal

LANGUAGE:

English

- . pharmacokinetic study with the Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with irinotecan (CPT-11) in patients with solid tumors
- . . . important anticancer drugs, such as CPT-11. Patients and AB methods: The study protocol included three groups of 6 patients with solid tumors given different RKI doses and the same dosage of CPT-11. Blood samples for measurement of CPT-11 and SN-38 were obtained.
- antitumor BAY439006 irinotecan CPT11 pharmacokinetic drug interaction ST solid tumor
- TT

(drug-drug interaction pharmacokinetic study with Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with irinotecan (CPT-11) in patients with solid tumors)

IT Drug interactions

> (pharmacokinetic, none noted; drug-drug interaction pharmacokinetic study with Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with irinotecan (CPT-11) in patients with solid tumors)

IT Neoplasm

> (solid; drug-drug interaction pharmacokinetic study with Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with irinotecan (CPT-11) in patients with solid tumors)

284461-73-0, BAY 43-9006

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(drug-drug interaction pharmacokinetic study with Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with irinotecan (CPT-11) in patients with solid tumors)

IT 86639-52-3, SN-38 100286-90-6, cpt-11

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (drug-drug interaction pharmacokinetic study with Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with irinotecan (CPT-11) in patients with solid tumors)

IT 139691-76-2, Raf kinase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitor; drug-drug interaction pharmacokinetic study with Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with irinotecan (CPT-11) in patients with solid tumors)

284461-73-0, BAY 43-9006

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(drug-drug interaction pharmacokinetic study with Raf kinase inhibitor (RKI) BAY 43-9006 administered in combination with irinotecan (CPT-11) in patients with solid tumors)

RN284461-73-0 HCAPLUS

2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c CN arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN

AB A review. BAY 43-9006 is the first orally active Raf kinase inhibitor to undergo clin. testing and has shown promise in the treatment of colorectal cancer. Treatment with BAY 43-9006 has resulted in stable disease in 37 % of patients across this phase I series, with 42 % of colorectal cancer patients achieving stable disease. Among patients achieving stable disease, 27 have been on therapy for over 6 mo without progression. Toxicity assocd. with this regimen is mild, with few grade 3/4 adverse events reported. Furthermore, fluorescence-activated cell sorter (FACS) anal. demonstrated that treatment with BAY 43-9006 could result in the inhibition of extracellular signal-regulated kinase (ERK) activation. Based on this phase I data, 2 phase II trials, including one in patients with colorectal cancer, have been initiated, and phase III trials are planned for 2003. At the 38th Annual Meeting of the American Society of Clin. Oncol., Vincent and colleagues reported on preclin. studies combining BAY 43-9006 with irinotecan, vinorelbine, or gemcitabine in human xenografts models. They demonstrated that BAY 43-9006 combined with cytotoxic or cytostatic agents is at least as efficacious as the individual agents administered alone. With this as rationale, multiple phase I/II studies are being designed to investigate the role of BAY 43-9006 in combination with std. chemotherapy.

ACCESSION NUMBER: 2003:476541 HCAPLUS

DOCUMENT NUMBER: 139:143192

TITLE: Activity of the Raf kinase inhibitor BAY 43-9006 in

patients with advanced solid tumors

AUTHOR(S): DeGrendele, Heather

CORPORATE SOURCE: US

SOURCE: Clinical Colorectal Cancer (2003), 3(1), 16-18

CODEN: CCCLCF; ISSN: 1533-0028

PUBLISHER: Cancer Information Group DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

TI Activity of the Raf kinase inhibitor BAY 43-9006 in patients with advanced solid tumors

AB . . . the first orally active Raf kinase inhibitor to undergo clin. testing and has shown promise in the treatment of colorectal cancer. Treatment with BAY 43-9006 has resulted in stable disease in 37 % of patients across this phase I series, with 42 % of colorectal cancer patients achieving stable disease. Among patients achieving stable disease, 27 have been on therapy for over 6 mo without progression. . . signal-regulated kinase (ERK) activation. Based on this phase I data, 2 phase II trials, including one in patients with colorectal cancer, have been initiated, and phase III trials are planned for 2003. At the 38th Annual Meeting of the American Society. .

ST review Raf kinase inhibitor BAY439006 antitumor colorectal tumor; BAY439006 pharmacokinetics antitumor solid tumor review

IT Antitumor agents

Human

(activity of Raf kinase inhibitor BAY 43-9006 in patients with advanced solid tumors)

IT Intestine, neoplasm

(colorectal; activity of Raf kinase inhibitor BAY 43-9006 in patients with advanced solid tumors)

IT Neoplasm

(solid; activity of Raf kinase inhibitor BAY 43-9006 in patients with advanced solid tumors)

IT **284461-73-0**, BAY 43-9006

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(activity of Raf kinase inhibitor BAY 43-9006 in patients with advanced solid tumors)

IT 139691-76-2, Raf kinase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (inhibitor; activity of Raf kinase inhibitor BAY 43-9006 in patients with advanced solid tumors)

IT **284461-73-0**, BAY 43-9006

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(activity of Raf kinase inhibitor BAY 43-9006 in patients with advanced solid tumors)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

9

REFERENCE COUNT:

THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4 GI

AB Title compds. B-NHCONH-L-(M-L1)q (I) [B = (un) substituted pyridyl, quinolinyl, isoquinolinyl; L = 5 or 6 membered cyclic structure; L1 = substituted cyclic moiety having at least 5 members; M = bridging group having at least one atom; q = 1-3; with proviso that L and L1 contain 0-4 hetero atoms, e.g., N, O and S] and their pharmaceutically acceptable salts were prepd. For example, coupling of aniline II, e.g., prepd. from Et 3-hydroxybenzoate in 4-steps, with bis(trichloromethyl)carbonate followed by 3-tert-butylaniline afforded urea III. In in vitro raf kinase assays, 112-specific examples of compds. I inhibited kinase activity with IC50 values ranging from 10 nM-10 .mu.M. Compds. I are useful for the treatment of cancerous cell growth mediated by raf kinase.

ACCESSION NUMBER:

2002:850357 HCAPLUS

DOCUMENT NUMBER:

137:352907

TITLE:

Preparation of quinolyl, isoquinolyl or pyridyl-ureas

as inhibitors of raf kinase for the treatment of

tumors and/or cancerous cell growth

INVENTOR(S):

Dumas, Jacques; Riedl, Bernd; Khire, Uday; Wood, Jill

E.; Robert, Sibley N.; Monahan, Mary-Katherine; Renick, Joel; Gunn, David E.; Lowinger, Timothy B.;

Scott, William J.; Smith, Roger A.

PATENT ASSIGNEE(S):

Bayer Corporation, USA

SOURCE:

U.S. Pat. Appl. Publ., 63 pp., Cont.-in-part of U.S.

Ser. No. 758,548.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND DAT	re a	APPLICATION NO.	DATE
US 2002165394	A1 200	021107 U	is 2001-777920	20010207
US 2002137774	A1 200	020926 U	IS 2001-907970	20010719
WO 2002062763)20815 W	O 2002-US3361	20020207
WU 2002062763	AZ 200)20012 W	0 2002-053361	20020207
WO 2002062763	A3 200	021010		
W: AE, AG,	AL, AM, AT	r, AU, AZ, BA,	BB, BG, BR, BY,	, BZ, CA, CH, CN,
CO, CR,	CU, CZ, DE	E, DK, DM, DZ,	EC, EE, ES, FI,	, GB, GD, GE, GH,
GM, HR,	HU, ID, II	L, IN, IS, JP,	KE, KG, KP, KR,	, KZ, LC, LK, LR,
LS, LT,	LU, LV, MA	A, MD, MG, MK,	MN, MW, MX, MZ,	, NO, NZ, PH, PL,
PT, RO,	RU, SD, SE	E, SG, SI, SK,	SL, TJ, TM, TR,	, TT, TZ, UA, UG,
US, UZ,	VN, YU, ZA	A, ZW, AM, AZ,	BY, KG, KZ, MD,	, RU, TJ, TM

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2003139605
                      A1
                            20030724
                                            US 2002-71248
                                                             20020211
PRIORITY APPLN. INFO .:
                                         US 1999-115877P P 19990113
                                         US 1999-257266
                                                          B2 19990225
                                         US 1999-425228
                                                          B2 19991022
                                         US 2001-758548
                                                          A2 20010112
                                         US 1999-115878P P 19990113
                                         US 2001-777920
                                                          A 20010207
                                         US 2001-948915
                                                          A1 20010910
                         MARPAT 137:352907
     Preparation of quinolyl, isoquinolyl or pyridyl-ureas as inhibitors of raf
     kinase for the treatment of tumors and/or cancerous
     cell growth
AB
       . . I inhibited kinase activity with IC50 values ranging from 10
     nM-10 .mu.M. Compds. I are useful for the treatment of cancerous
     cell growth mediated by raf kinase.
TΤ
     Antitumor agents
     Combinatorial chemistry
     Human
       Neoplasm
     Solid phase synthesis
        (prepn. of quinolyl, isoquinolyl or pyridyl-ureas as inhibitors of raf
        kinase)
IT
     228418-48-2P
                    284461-33-2P
                                    284461-34-3P
                                                   284461-35-4P
                                                                   284461-36-5P
     284461-37-6P
                    284461-38-7P
                                    284461-39-8P
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                    284461-43-4P
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                    284461-81-0P
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                                                   284461-84-3P
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                                                   284461-94-5P
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     447457-08-1P
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     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (drug candidate; prepn. of quinolyl, isoquinolyl or pyridyl-ureas as
        inhibitors of raf kinase)
IT
     284461-73-0P 284461-78-5P 284461-80-9P
     284462-28-8P 284462-29-9P 284462-30-2P
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; prepn. of quinolyl, isoquinolyl or pyridyl-ureas as inhibitors of raf kinase)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-28-8 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA

INDEX NAME)

RN 284462-29-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-30-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN GI

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CMe3
                                         NHMe
      Н
            Η
                                                II
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AΒ Title compds., e.g., RNHCONHZOR1 [I; R = C6H4(CMe3)-3, 2-methoxy-5-trifluoromethylphenyl, 4-chloro-3-trifluoromethylphenyl, 2-methoxy-3-quinolyl, etc.; R1 = (un)substituted acylphenyl, -acylpyridinyl, etc.; Z = (un) substituted 1,3- or -1,4-phenylene] were prepd. Thus, 4-(H2N)C6H4OC6H4(CONHMe)-4 (prepn. given) was condensed with 3-(Me3C)C6H4NH2 and CO(OCCl3)2 to give title compd. II. Data for biol. activity of title compds. were given.

ACCESSION NUMBER: 2002:615574 HCAPLUS

DOCUMENT NUMBER:

137:169425

TITLE:

Preparation of N-aryl-N'-[(acylphenoxy)phenyl]ureas as

raf kinase inhibitors

INVENTOR(S):

Dumas, Jacques; Riedl, Bernd; Khire, Uday; Wood, Jill

E.; Sibley, Robert N.; Monahan, Mary-Katherine; Renick, Joel; Gunn, David E.; Lowinger, Timothy B.;

Scott, William J.; Smith, Roger A.

PATENT ASSIGNEE(S):

SOURCE:

Bayer Corporation, USA PCT Int. Appl., 125 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE:

Patent

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT	NO.		KI	ND			APPLICATION NO					ο.	DATE			
			62763 A2 62763 A3				0815			0 20			 1	2002	0207		
		AE,						AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
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		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	ΝZ,	PH,	PL,
		PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,
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		CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,
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								1	US 1	999-	1158	77P	P	1999	0113		
								1	US 1	999-	2572	66	В2	1999	0225		
								Ī	US 1	999-	4252	28	В2	1999	1022		
								1	US 2	001-	7585	48	A2	2001	0112		
OTHE	R SOURC	Ξ(S):			MAR	PAT	137:	1694	25								
IT	Neopla	sm .															

(treatment; prepn. of N-aryl-N'-[(acylphenoxy)phenyl]ureas as raf kinase inhibitors)

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                                   447457-08-1P
                                                   447457-09-2P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (prepn. of N-aryl-N'-[(acylphenoxy)phenyl]ureas as raf kinase
        inhibitors)
IT
     284461-73-0P 284461-78-5P 284461-80-9P
     284461-83-2P 284462-28-8P 284462-29-9P
     284462-30-2P
     RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (prepn. of N-aryl-N'-[(acylphenoxy)phenyl]ureas as raf kinase
        inhibitors)
RN
     284461-73-0 HCAPLUS
     2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c
CN
     arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)
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RN 284461-78-5 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284461-83-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-28-8 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-29-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-30-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CAINDEX NAME)

L9 ANSWER 18 OF 29 USPATFULL on STN

AB This invention relates to the use of a group of aryl ureas in treating raf mediated diseases, and pharmaceutical compositions for use in such therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2002:251820 USPATFULL

TITLE:

Carboxyaryl substituted diphenyl ureas as raf kinase

inhibitors

INVENTOR(S):

Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF

Dumas, Jacques, Orange, CT, UNITED STATES Khire, Uday, Hamden, CT, UNITED STATES

Lowinger, Timothy B., Nishinomiya City, CANADA Scott, William J., Guilford, CT, UNITED STATES

PATENT ASSIGNEE(S):

Smith, Roger A., Madison, CT, UNITED STATES Wood, Jill E., Hamden, CT, UNITED STATES

Monahan, Mary-Katherine, Hamden, CT, UNITED STATES

Natero, Reina, Hamden, CT, UNITED STATES Renick, Joel, San Diego, CA, UNITED STATES

Sibley, Robert N., North Haven, CT, UNITED STATES

BAYER CORPORATION, Pittsburgh, PA (non-U.S.

corporation)

NUMBER KIND DATE -----

US 2002137774 A1 20020926 US 2001-907970 A1 20010719 (9) PATENT INFORMATION:

APPLICATION INFO.:

NUMBER DATE ______

PRIORITY INFORMATION: US 1999-115877P 19990113 (60)

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: 67 EXEMPLARY CLAIM: 1 3732 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

[0002] The p21.sup.ras oncogene is a major contributor to the development and progression of human solid cancers and is mutated in 30% of all human cancers (Bolton et al. Ann. Rep. Med. Chem. 1994, 29, 165-74; Bos. Cancer Res. 1989, 49, 4682-9). In its normal, unmutated form, the ras protein is a key element of the signal transduction. . . GDP-bound resting form is strictly controlled by ras' endogenous GTPase activity and other regulatory proteins. In the ras mutants in cancer cells, the endogenous GTPase activity is alleviated and, therefore, the protein delivers constitutive growth signals to downstream effectors such as the enzyme raf kinase. This leads to the cancerous growth of the cells which carry these mutants (Magnuson et al. Semin. Cancer Biol. 1994, 5, 247-53). It has been shown that inhibiting the effect of active ras by inhibiting the raf kinase. . . antisense oligodeoxynucleotides) has been correlated in vitro and in vivo with inhibition of the growth of a variety of human tumor types

(Monia et al., Nat. Med. 1996, 2, 668-75). SUMM . . . compositions for human or veterinary use where inhibition of the raf kinase pathway is indicated, e.g., in the treatment of tumors and/or cancerous cell growth mediated by raf kinase. In particular, the compounds are useful in the treatment of human or animal solid cancers, e.g., murine cancer, since the progression of these cancers is dependent upon the

ras protein signal transduction cascade and therefore susceptible to treatment by interruption of the cascade, i.e., by inhibiting raf kinase. Accordingly, the compounds of the invention are useful in treating cancers, including solid cancers, such as, for example, carcinomas (e.g., of the lungs, pancreas,

thyroid, bladder or colon), myeloid disorders (e.g., myeloid leukemia)

or adenomas (e.g., villous colon adenoma).

. . . is directed to compounds which inhibit the enzyme raf kinase SUMM and also compounds, compositions and methods for the treatment of

cancerous cell growth mediated by raf kinase wherein a compound of Formula I is administered or pharmaceutically acceptable salt thereof.

- DETD [0341] For in vitro growth assay, human tumor cell lines, including but not limited to HCT116 and DLD-1, containing mutated K-ras genes were used in standard proliferation assays for anchorage dependent growth on plastic or anchorage independent growth in soft agar. Human tumor cell lines were obtained from ATCC (Rockville Md.) and maintained in RPMI with 10% heat inactivated fetal bovine serum and.
- DETD [0344] An in vivo assay of the inhibitory effect of the compounds on tumors (e.g., solid cancers) mediated by raf kinase can be performed as follows:
- DETD . . . mice are dosed i.p., i.v. or p.o. at 10, 30, 100, or 300 mg/Kg beginning on approximately day 10, when **tumor** size is between 50-100 mg. Animals are dosed for 14 consecutive days once a day; **tumor** size was monitored with calipers twice a week.
- DETD [0346] The inhibitory effect of the compounds on raf kinase and therefore on tumors (e.g., solid cancers) mediated by raf kinase can further be demonstrated in vivo according to the technique of Monia et al. (Nat. Med.. . .
- CLM What is claimed is:
 62. A method for the treatment of a cancerous cell growth
 mediated by raf kinase, comprising administering a compound of Formula I
 of claim 1.
 - 63. A method for the treatment of a **cancerous** cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 33.
 - 64. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 38.
 - 65. A method for the treatment of a **cancerous** cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 39.
 - 66. A method for the treatment of a **cancerous** cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of 3-tert butyl phenyl ureas. . . 67. A method for the treatment of a **cancerous** cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of the 3-tert butyl phenyl. . .

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IT 284461-73-0P 284461-78-5P 284461-80-9P

284461-83-2P 284462-28-8P 284462-29-9P

284462-30-2P

(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

RN 284461-73-0 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284461-83-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284462-28-8 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284462-29-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

284462-30-2 USPATFULL RN

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 19 OF 29 USPATFULL on STN

AΒ This invention relates to the use of a group of aryl ureas in treating raf mediated diseases, and pharmaceutical compositions for use in such therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

PATENT ASSIGNEE(S):

2002:78859 USPATFULL

TITLE:

Omega-carboxyaryl substituted diphenyl ureas as raf

kinase inhibitors

INVENTOR(S):

Uday, Khire, Hamden, CT, UNITED STATES Dumas, Jacques, Orange, CT, UNITED STATES

Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF

Lowinger, Timothy B., Nishinomiya City, JAPAN Scott, William J., Guilford, CT, UNITED STATES Smith, Roger A., Madison, CT, UNITED STATES

Wood, Jill E., Hamden, CT, UNITED STATES

Monahan, Mary-Katherine, Hamden, CT, UNITED STATES

Natero, Reina, Hamden, CT, UNITED STATES Joel, Renick, Milford, CT, UNITED STATES

Sibley, Robert N., North Haven, CT, UNITED STATES

BAYER CORPORATION, Pittsburgh, PA, 15205 (U.S.

corporation)

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	NUMBER	KIND	DATE			
PATENT INFORMATION:	US 2002042517	A1	20020411			
APPLICATION INFO.:	US 2001-948915	A1	20010910	(9)		
RELATED APPLN. INFO.:	Continuation of	Ser. No.	. US 1999-	125228,	filed on 22	
	Oct 1999, ABANDO	NED Cont	tinuation-	in-part	of Ser. No.	US
	1999-257266, fil	ed on 25	5 Feb 1999,	ABANDO	ONED	

NUMBER DATE

PRIORITY INFORMATION: US 1999-115877P 19990113 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: 67
EXEMPLARY CLAIM: 1
LINE COUNT: 3675

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

[0003] The p21.sup.ras oncogene is a major contributor to the development and progression of human solid cancers and is mutated in 30% of all human cancers (Bolton et al. Ann. Rep. Med. Chem. 1994, 29, 165-74; Bos. Cancer Res. 1989, 49, 4682-9). In its normal, unmutated form, the ras protein is a key element of the signal transduction. . . GDP-bound resting form is strictly controlled by ras' endogenous GTPase activity and other regulatory proteins. In the ras mutants in cancer cells, the endogenous GTPase activity is alleviated and, therefore, the protein delivers constitutive growth signals to downstream effectors such as the enzyme raf kinase. This leads to the cancerous growth of the cells which carry these mutants (Magnuson et al. Semin. Cancer Biol. 1994, 5, 247-53). It has been shown that inhibiting the effect of active ras by inhibiting the raf kinase. . . antisense oligodeoxynucleotides) has been correlated in vitro and in vivo with inhibition of the growth of a variety of human tumor types (Monia et al., Nat. Med. 1996, 2, 668-75).

SUMM . . . compositions for human or veterinary use where inhibition of the raf kinase pathway is indicated, e.g., in the treatment of tumors and/or cancerous cell growth mediated by raf kinase. In particular, the compounds are useful in the treatment of human or animal solid cancers, e.g., murine cancer, since the progression of these cancers is dependent upon the ras protein signal transduction cascade and therefore susceptible to treatment by interruption of the cascade, i.e., by inhibiting raf kinase. Accordingly, the compounds of the invention are useful in treating cancers, including solid cancers, such as, for example, carcinomas (e.g., of the lungs, pancreas, thyroid, bladder or colon), myeloid disorders (e.g., myeloid leukemia) or adenomas (e.g., villous colon adenoma).

SUMM . . . is directed to compounds which inhibit the enzyme raf kinase and also compounds, compositions and methods for the treatment of cancerous cell growth mediated by raf kinase wherein a compound of Formula I is administered or pharmaceutically acceptable salt thereof.

CLM What is claimed is:
62. A method for the treatment of a cancerous cell growth
mediated by raf kinase, comprising administering a compound of Formula I
of claim 1.

- 63. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 33.
- 64. A method for the treatment of a cancerous cell growth

mediated by raf kinase, comprising administering a compound of Formula I of claim 38.

65. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 39.

66. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of 3-tert butyl phenyl ureas. . . 67. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of the 3-tert butyl phenyl. . .

IT 284461-33-2P 284461-34-3P 284461-35-4P 284461-36-5P 228418-48-2P 284461-37-6P 284461-38-7P 284461-39-8P 284461-40-1P 284461-41-2P 284461-42-3P 284461-43-4P 284461-44-5P 284461-45-6P 284461-46-7P 284461-47-8P 284461-48-9P 284461-49-0P 284461-50-3P 284461-51-4P 284461-54-7P 284461-52-5P 284461-53-6P 284461-55-8P 284461-56-9P 284461-57-0P 284461-58-1P 284461-59-2P 284461-60-5P 284461-61-6P 284461-62-7P 284461-63-8P 284461-64-9P 284461-65-0P 284461-66-1P 284461-67-2P 284461-68-3P 284461-69-4P 284461-70-7P 284461-71-8P 284461-72-9P **284461-73-0P** 284461-74-1P 284461-75-2P 284461-76-3P 284461-77-4P **284461-78-5P** 284461-79-6P 284461-81-0P 284461-82-1P 284461-83-2P 284461-80-9P 284461-84-3P 284461-85-4P 284461-88-7P 284461-90-1P 284461-91-2P 284461-92-3P 284461-93-4P 284461-94-5P 284461-95-6P 284461-96-7P 284461-98-9P 284461-99-0P 284462-00-6P 284462-01-7P 284461-97-8P 284462-02-8P 284462-03-9P 284462-04-0P 284462-05-1P 284462-07-3P 284462-12-0P 284462-08-4P 284462-09-5P 284462-10-8P 284462-11-9P 284462-18-6P 284462-13-1P 284462-15-3P 284462-16-4P 284462-17-5P 284462-23-3P 284462-19-7P 284462-20-0P 284462-21-1P 284462-22-2P 284462-24-4P 284462-25-5P 284462-26-6P 284462-27-7P 284462-28-8P 284462-29-9P 284462-30-2P 284462-31-3P 284462-32-4P 284462-33-5P 284462-34-6P 284462-35-7P 284462-36-8P 284462-70-0P (prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase

IT 284461-73-0P 284461-78-5P 284461-80-9P

284461-83-2P 284462-28-8P 284462-29-9P

284462-30-2P

(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

RN 284461-73-0 USPATFULL

inhibitors)

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284461-83-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-28-8 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-29-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-30-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN

AB A review. The drug design and discovery efforts described in the previous section led to the development of a novel, small mol. Raf-1 kinase inhibitor, BAY 43-9006, which belongs to a class that can be broadly described as bis-aryl ureas. BAY 43-9006 was identified during a large medicinal chem. optimization program, and this compd. was selected for further pharmacol. characterization based on its potent inhibition of Raf-1 (IC50 12 nM) and its favorable kinase selectivity profile [2, 3]. In vitro and in vivo expts. were designed to demonstrate effective blockade of the Raf/MEK/ERK signaling pathway in tumor cells and for antitumor efficacy in human xenograft models.

ACCESSION NUMBER:

2002:785445 HCAPLUS

DOCUMENT NUMBER:

138:296904

TITLE:

BAY 43-9006: Preclinical data

SOURCE:

AUTHOR(S): Wilhelm, Scott; Chien, Du-Shieng

CORPORATE SOURCE: Bayer Research Center, Institute for Preclinical Drug

Development, Pharmaceutical Division, Bayer

Corporation, West Haven, CT, 06516, USA

Current Pharmaceutical Design (2002), 8(25), 2255-2257. CODEN: CPDEFP; ISSN: 1381-6128

PUBLISHER: Bentham Science Publishers
DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB . . . [2, 3]. In vitro and in vivo expts. were designed to demonstrate effective blockade of the Raf/MEK/ERK signaling pathway in tumor cells and for antitumor efficacy in human xenograft models.

IT Antitumor agents

Human

Neoplasm

(antitumor BAY 43-9006)

IT **284461-73-0**, BAY 43-9006

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antitumor BAY 43-9006)

IT 284461-73-0, BAY 43-9006

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antitumor BAY 43-9006)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN

AB A review. Various signaling pathways can confer the malignant phenotype to a cell. Ras signaling proteins have been found to play an important role in controlling cellular growth. Raf-1 is a protein kinase that exerts its effects downstream of Ras in the mitogen-activated protein kinase pathway and is thus likely to be crucial in the development of the malignant phenotype. BAY 43-9006 is an orally administered selective inhibitor of Raf-1 and the first compd. of its class to enter clin. trials. This article describes the early clin. data of BAY 43-9006 in patients with advanced, refractory solid tumors. To date, over 60 patients have been treated as part of four Phase I clin. trials. Dose levels have ranged from 50mg once weekly to 200mg twice-daily in continuous administration. The drug has been generally well tolerated with no dose limiting toxicity yet encountered. The more common

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toxicities have involved the gastrointestinal tract (diarrhea, nausea,
     abdominal cramping) and the skin (pruritus, rash, cheilitis).
     Pharmacokinetic evaluations have found BAY 43-9006 to have considerable
     interpatient variability. However, there seems to be an increase in Cmax
     and AUC values with increasing dose. There is no clear effect of food on
     bioavailability. Splitting the dose to twice-daily administration has
     shown increases in Cmax and AUC values but is also accompanied by
     considerable interpatient variability.
                         2002:785444 HCAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         137:362317
TITLE:
                         BAY 43-9006: Early clinical data in patients with
                         advanced solid malignancies
                         Hotte, Sebastien J.; Hirte, Hal W.
AUTHOR(S):
                         Department of Medicine, Hamilton Regional Cancer
CORPORATE SOURCE:
                         Centre, McMaster University and Division of Medical
                         Oncology, Hamilton, ON, Can.
SOURCE:
                         Current Pharmaceutical Design (2002), 8(25), 2249-2253
                         CODEN: CPDEFP; ISSN: 1381-6128
PUBLISHER:
                         Bentham Science Publishers
DOCUMENT TYPE:
                         Journal; General Review
LANGUAGE:
                         English
             to enter clin. trials. This article describes the early clin.
     data of BAY 43-9006 in patients with advanced, refractory solid
     tumors. To date, over 60 patients have been treated as part of
     four Phase I clin. trials. Dose levels have ranged.
     review antitumor BAY439006 drug bioavailability solid neoplasm
     Drug bioavailability
     Human
        (BAY 43-9006 for patients with advanced solid neoplasm)
     Antitumor agents
        (solid neoplasm; BAY 43-9006 for patients with advanced solid
        neoplasm)
     Neoplasm
        (solid; BAY 43-9006 for patients with advanced solid neoplasm
     475207-59-1, BAY 43-9006 mono-p-tosylate
     RL: ADV (Adverse effect, including toxicity); DMA (Drug mechanism of
     action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (BAY 43-9006 for patients with advanced solid neoplasm)
     139691-76-2, Raf-1 kinase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitor; BAY 43-9006 for patients with advanced solid
        neoplasm)
     475207-59-1, BAY 43-9006 mono-p-tosylate
     RL: ADV (Adverse effect, including toxicity); DMA (Drug mechanism of
     action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (BAY 43-9006 for patients with advanced solid neoplasm)
     475207-59-1 HCAPLUS
     2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c
     arbonyl]amino]phenoxy]-N-methyl-, mono(4-methylbenzenesulfonate) (9CI)
     (CA INDEX NAME)
     CM
          1
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CRN 284461-73-0

CMF C21 H16 C1 F3 N4 O3

CM 2

CRN 104-15-4 CMF C7 H8 O3 S

REFERENCE COUNT:

16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN L9 A review with refs. The Ras/Raf/MEK pathway is a signaling module that AB controls cell growth and survival. Activation of this pathway results in a cascade of events from the cell surface to the nucleus ultimately affecting cellular proliferation, apoptosis, differentiation and transformation. Raf is a serine/threonine kinase that is a downstream effector enzyme of Ras. When activated, Raf goes on to activate MEK1 and MEK2 kinases which in turn phosphorylate and activate ERK1 and ERK2 which translocate to the nucleus where they stimulate pathways required for translation initiation and transcription activation leading to proliferation. Raf kinase has been validated as a potential and attractive target for hyperproliferative disorders such as cancer Research has recently focused on efforts to discover potent Raf kinase inhibitors and several low-mol.-wt. Raf kinase inhibitors have been described. Bis-aryl ureas were identified within this program using medicinal chem.-directed syntheses or combinatorial libraries. After high-throughput screening of more than 200,000 compds. against recombinant Raf-1 kinase, the orally active Bay-43-9006 was identified as having potent inhibitory activity and was chosen for further development as a treatment for cancer. Bay-43-9006 has exhibited potent in vitro activity against several tumor cell lines and has displayed efficacy in human tumor xenograft models. Moreover, results from phase I development in patients with a variety of cancer types indicates promising clin. efficacy for the compd.

ACCESSION NUMBER:

2003:208292 HCAPLUS

DOCUMENT NUMBER:

139:269975

TITLE:

Oncolytic Raf kinase inhibitor

AUTHOR(S):

Sorbera, L. A.; Castaner, J.; Bozzo, J.; Leeson, P. A.

CORPORATE SOURCE:

Prous Science, Barcelona, 08080, Spain

SOURCE:

Drugs of the Future (2002), 27(12), 1141-1147

CODEN: DRFUD4; ISSN: 0377-8282

PUBLISHER:

Prous Science

DOCUMENT TYPE:

Journal; General Review

LANGUAGE:

English

AB . . . activation leading to proliferation. Raf kinase has been validated as a potential and attractive target for hyperproliferative disorders such as cancer. Research has recently focused on efforts to discover potent Raf kinase inhibitors and several low-mol.-wt. Raf kinase inhibitors have been. . . orally active Bay-43-9006 was identified as having potent inhibitory activity and was chosen for further development as a treatment for cancer. Bay-43-9006 has exhibited potent in vitro activity against several tumor cell lines and has displayed efficacy in human tumor xenograft models. Moreover, results from phase I development in patients with a variety of cancer types indicates promising clin. efficacy for

IT 139691-76-2, Raf kinase 284461-73-0, Bay-43-9006

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(oncolytic Raf kinase inhibitor)

IT **284461-73-0**, Bay-43-9006

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(oncolytic Raf kinase inhibitor)

RN 284461-73-0 HCAPLUS

the compd.

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN GI

35

DELACROIX

AB Urea I (BAY 43-9006), a potent Raf kinase inhibitor, was prepd. in four steps from picolinic acid with an overall yield of 63%. Significant process research enabled isolation of each intermediate and target without chromatog. purifn., and overall yield increases >50% were obsd. compared to those from previous methods. This report focuses on improved synthetic strategies for prodn. of scaled quantities of I for preclin., toxicol. studies. These improvements may be useful to assemble other urea targets as potential therapeutic agents to combat cancer.

ACCESSION NUMBER: 2002:713341 HCAPLUS

DOCUMENT NUMBER: 137:384728

TITLE: A Scaleable Synthesis of BAY 43-9006: A Potent Raf

Kinase Inhibitor for the Treatment of Cancer
AUTHOR(S): Bankston, Donald; Dumas, Jacques; Natero, Reina;

Riedl, Bernd; Monahan, Mary-Katherine; Sibley, Robert

Ι

CORPORATE SOURCE: Pharmaceutical Division, Bayer Research Center, West

Haven, CT, 06516, USA

SOURCE: Organic Process Research & Development (2002), 6(6),

777-781

CODEN: OPRDFK; ISSN: 1083-6160

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

TI A Scaleable Synthesis of BAY 43-9006: A Potent Raf Kinase Inhibitor for the Treatment of Cancer

AB . . . for preclin., toxicol. studies. These improvements may be useful to assemble other urea targets as potential therapeutic agents to combat

ST Raf kinase inhibitor treatment cancer scaleable synthesis; manuf BAY 439006; pyridinyloxyphenylurea manuf

IT 284461-73-0P, BAY 43-9006

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(scalable four-step synthesis of a Raf kinase inhibitor urea BAY 43-9006 from picolinic acid)

IT 284461-73-0P, BAY 43-9006

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)

(scalable four-step synthesis of a Raf kinase inhibitor urea BAY 43-9006 from picolinic acid)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 24 OF 29 USPATFULL on STN

This invention relates to the use of a group of aryl ureas in treating AΒ raf mediated diseases, and pharmaceutical compositions for use in such therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:188813 USPATFULL

TITLE: Omega-carboxyaryl substituted diphenyl ureas as raf

kinase inhibitors

Riedl, Bernd, Wupperal, Germany, Federal Republic of INVENTOR(S):

Dumas, Jacques, Orange, CT, United States Khire, Uday, Hamden, CT, United States Lowinger, Timothy P., Nashnomya City, Japan Scott, William J., Gulford, CT, United States Smith, Roger A., Madison, CT, United States Wood, Jill E., Hamden, CT, United States

Monahan, Mary-Katherine, Hamden, CT, United States

Natero, Rena, Handen, CT, United States Renick, Joel, Milford, CT, United States

Sibley, Robert N., North Haven, CT, United States

		NUMBER	KIND	DATE	
PATENT INFORMATION:	US	2001034447	A1	20011025	
APPLICATION INFO.:	US	2001-773604	A1	20010202	(9

RELATED APPLN. INFO.:

Continuation of Ser. No. US 1999-425228, filed on 22 Oct 1999, PENDING Continuation-in-part of Ser. No. US

1999-257266, filed on 25 Feb 1999, ABANDONED

NUMBER DATE

PRIORITY INFORMATION: US 1999-115877P 19990113 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: 67 EXEMPLARY CLAIM: 1 LINE COUNT: 3666

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

[0002] The p21.sup.ras oncogene is a major contributor to the SUMM development and progression of human solid cancers and is mutated in 30% of all human cancers (Bolton et al. Ann. Rep.

Med. Chem. 1994, 29, 165-74; Bos. Cancer Res. 1989, 49, 4682-9). In its normal, umnutated form, the ras protein is a key element of the signal transduction. . . GDP-bound resting form is strictly controlled by ras' endogenous GTPase activity and other regulatory proteins. In the ras mutants in cancer cells, the endogenous GTPase activity is alleviated and, therefore, the protein delivers constitutive growth signals to downstream effectors such as the enzyme raf kinase. This leads to the cancerous growth of the cells which carry these mutants (Magnuson et al. Semin. Cancer Biol. 1994, 5, 247-53). It has been shown that inhibiting the effect of active ras by inhibiting the raf kinase. . . antisense oligodeoxynucleotides) has been correlated in vitro and in vivo with inhibition of the growth of a variety of human tumor types (Monia et al., Nat. Med. 1996, 2, 668-75).

SUMM

. . . compositions for human or veterinary use where inhibition of the raf kinase pathway is indicated, e.g., in the treatment of tumors and/or cancerous cell growth mediated by raf kinase. In particular, the compounds are useful in the treatment of human or animal solid cancers, e.g., murine cancer, since the progression of these cancers is dependent upon the ras protein signal transduction cascade and therefore susceptible to treatment by interruption of the cascade, i.e., by inhibiting raf kinase. Accordingly, the compounds of the invention are useful in treating cancers, including solid cancers, such as, for example, carcinomas (e.g., of the lungs, pancreas, thyroid, bladder or colon), myeloid disorders (e.g., myeloid leukemia) or adenomas (e.g., villous colon adenoma).

SUMM

. . . is directed to compounds which inhibit the enzyme raf kinase and also compounds, compositions and methods for the treatment of cancerous cell growth mediated by raf kinase wherein a compound of Formula I is administered or pharmaceutically acceptable salt thereof.

CLM

- What is claimed is:
 62. A method for the treatment of a cancerous cell growth
- mediated by raf kinase, comprising administering a compound of Formula I of claim 1.
- 63. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 33.
- 64. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 38.
- 65. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 39.

IT 228418-48-2P 284461-33-2P 284461-34-3P 284461-35-4P 284461-36-5P 284461-37-6P 284461-38-7P 284461-39-8P 284461-40-1P 284461-41-2P

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284461-46-7P
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                                               284461-95-6P
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284462-08-4P
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                               284462-10-8P
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                                               284462-17-5P
                                                               284462-18-6P
284462-13-1P
               284462-20-0P
                                               284462-22-2P
                                                               284462-23-3P
284462-19-7P
                               284462-21-1P
284462-24-4P
               284462-25-5P
                               284462-26-6P
                                               284462-27-7P
284462-28-8P 284462-29-9P 284462-30-2P
284462-31-3P
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                               284462-33-5P
                                               284462-34-6P
                                                               284462-35-7P
284462-36-8P
               284462-70-0P
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(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

IT 284461-73-0P 284461-78-5P 284461-80-9P

284461-83-2P 284462-28-8P 284462-29-9P

284462-30-2P

(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

RN 284461-73-0 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284461-83-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-28-8 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-29-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-30-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 25 OF 29 USPATFULL on STN

AB This invention relates to the use of a group of aryl ureas in treating raf mediated diseases, and pharmaceutical compositions for use in such therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:171152 USPATFULL

TITLE: Omega-carboxyaryl substituted disphenyl ureas as raf

kinase inhibitors

INVENTOR(S): Riedl, Bernd, Wuppertal, Germany, Federal Republic of

Dumas, Jaques, Orange, CT, United States Khire, Uday, Hamden, CT, United States

Lowinger, Timothy B., Nishinomiya City, Japan Scott, William J., Guilford, CT, United States

Smith, Roger A., Madison, CT, United States Wood, Jill E., Hamden, CT, United States Monahan, Mary-Katherine, Hamden, CT, United States Natero, Reina, Hamden, CT, United States Renick, Joel, Milford, CT, United States Sibley, Robert N., Noth Haven, CT, United States

KIND DATE NUMBER ______

PATENT INFORMATION: APPLICATION INFO.: RELATED APPLN. INFO.: US 2001027202 A1 20011004 US 2001-773658 A1 20010202 (9)

Continuation of Ser. No. US 1999-425228, filed on 22 Oct 1999, PENDING Continuation-in-part of Ser. No. US

1999-257266, filed on 25 Feb 1999, ABANDONED

NUMBER DATE -----

PRIORITY INFORMATION:

US 1999-115877P 19990113 (60)

DOCUMENT TYPE: FILE SEGMENT:

Utility

APPLICATION

LEGAL REPRESENTATIVE:

MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Arlington

Courthouse Plaza I, Suite 1400, 2200 Clarendon

Boulevard, Arlington, VA, 22201

NUMBER OF CLAIMS: EXEMPLARY CLAIM: LINE COUNT:

67 1 3656

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

[0003] The p21.sup.ras oncogene is a major contributor to the development and progression of human solid cancers and is mutated in 30% of all human cancers (Bolton et al. Ann. Rep. Med. Chem. 1994, 29, 165-74; Bos. Cancer Res. 1989, 49, 4682-9). In its normal, unmutated form, the ras protein is a key element of the signal transduction. . . GDP-bound resting form is strictly controlled by ras' endogenous GTPase activity and other regulatory proteins. In the ras mutants in cancer cells, the endogenous GTPase activity is alleviated and, therefore, the protein delivers constitutive growth signals to downstream effectors such as the enzyme raf kinase. This leads to the cancerous growth of the cells which carry these mutants (Magnuson et al. Semin. Cancer Biol. 1994, 5, 247-53). It has been shown that inhibiting the effect of active ras by inhibiting the raf kinase. . . antisense oligodeoxynucleotides) has been correlated in vitro and in vivo with inhibition of the growth of a variety of human tumor types (Monia et al., Nat. Med. 1996, 2, 668-75).

SUMM

. . . compositions for human or veterinary use where inhibition of the raf kinase pathway is indicated, e.g., in the treatment of tumors and/or cancerous cell growth mediated by raf kinase. In particular, the compounds are useful in the treatment of human or animal solid cancers, e.g., murine cancer, since the progression of these cancers is dependent upon the ras protein signal transduction cascade and therefore susceptible to treatment by interruption of the cascade, i.e., by inhibiting raf kinase. Accordingly, the compounds of the invention are useful in treating cancers, including solid cancers, such as, for example, carcinomas (e.g., of the lungs, pancreas, thyroid, bladder or colon), myeloid disorders (e.g., myeloid leukemia) or adenomas (e.g., villous colon adenoma).

SUMM . . . is directed to compounds which inhibit the enzyme raf kinase and also compounds, compositions and methods for the treatment of cancerous cell growth mediated by raf kinase wherein a compound of Formula I is administered or pharmaceutically acceptable salt thereof.

CLM What is claimed is:

- 62. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 1.
- 63. A method for the treatment of a **cancerous** cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 33.
- 64. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 38.
- 65. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 39.
- 66. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of 3-tert butyl phenyl ureas. 67. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of the 3-tert butyl phenyl. 284461-36-5P IT 228418-48-2P 284461-33-2P 284461-34-3P 284461-35-4P 284461-37-6P 284461-38-7P 284461-39-8P 284461-40-1P 284461-41-2P 284461-42-3P 284461-43-4P 284461-44-5P 284461-45-6P 284461-46-7P 284461-47-8P 284461-48-9P 284461-49-0P 284461-50-3P 284461-51-4P 284461-52-5P 284461-53-6P 284461-54-7P 284461-55-8P 284461-56-9P 284461-58-1P 284461-59-2P 284461-60-5P 284461-61-6P 284461-57-0P 284461-63-8P 284461-66-1P 284461-62-7P 284461-64-9P 284461-65-0P 284461-67-2P 284461-68-3P 284461-69-4P 284461-70-7P 284461-71-8P 284461-72-9P **284461-73-0P** 284461-74-1P 284461-75-2P 284461-76-3P 284461-77-4P **284461-78-5P** 284461-79-6P **284461-80-9P** 284461-81-0P 284461-82-1P **284461-83-2P** 284461-91-2P 284461-84-3P 284461-85-4P 284461-88-7P 284461-90-1P 284461-92-3P 284461-93-4P 284461-94-5P 284461-95-6P 284461-96-7P 284462-01-7P 284461-97-8P 284461-98-9P 284461-99-0P 284462-00-6P 284462-02-8P 284462-03-9P 284462-04-0P 284462-05-1P 284462-07-3P 284462-08-4P 284462-09-5P 284462-10-8P 284462-11-9P 284462-12-0P 284462-13-1P 284462-15-3P 284462-16-4P 284462-17-5P 284462-18-6P 284462-19-7P 284462-20-0P 284462-21-1P 284462-22-2P 284462-23-3P 284462-24-4P 284462-25-5P 284462-26-6P 284462-27-7P 284462-28-8P 284462-29-9P 284462-30-2P 284462-31-3P 284462-32-4P 284462-33-5P 284462-34-6P 284462-35-7P 284462-70-0P 284462-36-8P

(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors) $\,$

IT 284461-73-0P 284461-78-5P 284461-80-9P 284461-83-2P 284462-28-8P 284462-29-9P

(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

RN 284461-73-0 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 USPATFULL

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RN 284461-80-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284461-83-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284462-28-8 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-29-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-30-2 USPATFULL

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L9 ANSWER 26 OF 29 USPATFULL on STN

AB This invention relates to the use of a group of aryl ureas in treating raf mediated diseases, and pharmaceutical compositions for use in such therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2001:139616 USPATFULL

TITLE:

Omega-carboxyaryl substituted diphenyl ureas as raf

kinase inhibitors

INVENTOR(S):

Riedl, Bernd, Wupperal, Germany, Federal Republic of

Dumas, Jacques, Orange, CT, United States Khire, Uday, Hamden, CT, United States Lowinger, Timothy B., Nashnomya City, Japan Scott, William J., Gulford, CT, United States Smith, Roger A., Madison, CT, United States Wood, Jill E., Hamden, CT, United States

Monahan, Mary-Katherine, Hamden, CT, United States

Natero, Rena, Hamden, CT, United States Renick, Joel, Milford, CT, United States

Sibley, Robert N., North Haven, CT, United States

NUMBER KIND DATE US 2001016659 20010823 A1 US 2001-773672 A1 20010202 (9)

APPLICATION INFO.: RELATED APPLN. INFO.:

PATENT INFORMATION:

Continuation of Ser. No. US 1999-425228, filed on 22 Oct 1999, PENDING Continuation-in-part of Ser. No. US

1999-257266, filed on 25 Feb 1999, ABANDONED

NUMBER DATE

PRIORITY INFORMATION:

US 1999-115877P 19990113 (60)

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE:

MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1

LINE COUNT: 3652

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

[0003] The p.sub.21ras oncogene is a major contributor to the development and progression of human solid cancers and is mutated in 30% of all human cancers (Bolton et al. Ann. Rep.

Med. Chem. 1994, 29, 165-74; Bos. Cancer Res. 1989, 49,

4682-9). In its normal, unmutated form, the ras protein is a key element of the signal transduction. . . GDP-bound resting form is strictly

controlled by ras' endogenous GTPase activity and other regulatory proteins. In the ras mutants in cancer cells, the endogenous GTPase activity is alleviated and, therefore, the protein delivers constitutive growth signals to downstream effectors such as the enzyme raf kinase. This leads to the cancerous growth of the cells which carry these mutants (Magnuson et al. Semin. Cancer Biol. 1994, 5, 247-53). It has been shown that inhibiting the effect of active ras by inhibiting the raf kinase. . . antisense oligodeoxynucleotides) has been correlated in vitro and in vivo with inhibition of the growth of a variety of human tumor types (Monia et al., Nat. Med. 1996, 2, 668-75).

SUMM

compositions for human or veterinary use where inhibition of the raf kinase pathway is indicated, e.g., in the treatment of tumors and/or cancerous cell growth mediated by raf kinase. In particular, the compounds are useful in the treatment of human or animal solid cancers, e.g., murine cancer, since the progression of these cancers is dependent upon the ras protein signal transduction cascade and therefore susceptible to treatment by interruption of the cascade, i.e., by inhibiting raf kinase. Accordingly, the compounds of the invention are useful in treating cancers, including solid cancers, such as, for example, carcinomas (e.g., of the lungs, pancreas, thyroid, bladder or colon), myeloid disorders (e.g., myeloid leukemia) or adenomas (e.g., villous colon adenoma).

SUMM

. . . is directed to compounds which inhibit the enzyme raf kinase and also compounds, compositions and methods for the treatment of cancerous cell growth mediated by raf kinase wherein a compound of Formula I is administered or pharmaceutically acceptable salt thereof.

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- What is claimed is:
 62. A method for the treatment of a cancerous cell growth
 mediated by raf kinase, comprising administering a compound of Formula I
 of claim 1.
- 63. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 33.
- 64. A method for the treatment of a cancerous cell growth mediated by r af kinase, comprising administering a compound of Formula I of claim 38.
- 65. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 39.
- 66. A method for the treatment of a **cancerous** cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of 3-tert butyl phenyl ureas. . . 67. A method for the treatment of a **cancerous** cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of the 3-tert butyl phenyl. . .

284461-36-5P IT 228418-48-2P 284461-33-2P 284461-34-3P 284461-35-4P 284461-37-6P 284461-38-7P 284461-39-8P 284461-40-1P 284461-41-2P 284461-42-3P 284461-43-4P 284461-47-8P 284461-48-9P 284461-44-5P 284461-49-0P 284461-45-6P 284461-46-7P 284461-50-3P 284461-51-4P 284461-52-5P 284461-53-6P 284461-54-7P 284461-55-8P 284461-56-9P

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               284461-63-8P
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284461-80-9P
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284462-08-4P
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               284462-15-3P
                               284462-16-4P
                                               284462-17-5P
                                                               284462-18-6P
284462-19-7P
               284462-20-0P
                               284462-21-1P
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284462-24-4P
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284462-31-3P
               284462-32-4P
                               284462-33-5P
               284462-70-0P
284462-36-8P
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(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

IT 284461-73-0P 284461-78-5P 284461-80-9P

284461-83-2P 284462-28-8P 284462-29-9P

284462-30-2P

(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

RN 284461-73-0 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

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CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 USPATFULL

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RN 284462-28-8 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-29-9 USPATFULL

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L9 ANSWER 27 OF 29 USPATFULL on STN

AB This invention relates to the use of a group of aryl ureas in treating raf mediated diseases, and pharmaceutical compositions for use in such therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2001:123628 USPATFULL

TITLE:

omega-carboxyyaryl substituted diphenyl ureas as raf

kinase inhibitors

INVENTOR(S):

Riedl, Bernd, Wuppertal, Germany, Federal Republic of

Dumas, Jacques, Orange, CT, United States Khire, Uday, Hamden, CT, United States

Lowinger, Timothy B., Nishinomiya City, Japan Scott, William J., Guilford, CT, United States Smith, Roger A., Madison, CT, United States

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Monahan, Mary-Katherine, Hamden, CT, United States

Natero, Reina, Hamden, CT, United States Renick, Joel, Milford, CT, United States

Sibley, Robert N., North Haven, CT, United States

	NUMBER	KIND	DATE	
PATENT INFORMATION: APPLICATION INFO.: RELATED APPLN. INFO.:		Al Ser. No.	20010202 US 1999-	425228, filed on 22
	Oct 1999, PENDIN 1999-257266, fil			-part of Ser. No. US , ABANDONED

NUMBER DATE

PRIORITY INFORMATION: US 1999-115877P 19990113 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Suite 1400,

2200 Clarendon Blvd., Arlington, VA, 22201

NUMBER OF CLAIMS: 67
EXEMPLARY CLAIM: 1
LINE COUNT: 3646

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

[0003] The p21.sup.ras oncogene is a major contributor to the development and progression of human solid cancers and is mutated in 30% of all human cancers (Bolton et al. Ann. Rep. Med. Chem. 1994, 29, 165-74; Bos. Cancer Res. 1989, 49, 4682-9). In its normal, unmutated form, the ras protein is a key element of the signal transduction. . . GDP-bound resting form is strictly controlled by ras' endogenous GTPase activity and other regulatory proteins. In the ras mutants in cancer cells, the endogenous GTPase activity is alleviated and, therefore, the protein delivers constitutive growth signals to downstream effectors such as the enzyme raf kinase. This leads to the cancerous growth of the cells which carry these mutants (Magnuson et al. Semin. Cancer Biol. 1994, 5, 247-53). It has been shown that inhibiting the effect of active ras by inhibiting the raf kinase. . . antisense oligodeoxynucleotides) has been correlated in vitro and in vivo with inhibition of the growth of a variety of human tumor types (Monia et al., Nat. Med. 1996, 2, 668-75).

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IT 284461-73-0P 284461-78-5P 284461-80-9P

284461-83-2P 284462-28-8P 284462-29-9P

284462-30-2P

(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

RN 284461-73-0 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284461-83-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-28-8 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284462-29-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-30-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L9 ANSWER 28 OF 29 USPATFULL on STN

AB This invention relates to the use of a group of aryl ureas in treating raf mediated diseases, and pharmaceutical compositions for use in such therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2001:123627 USPATFULL

TITLE:

Omega-carboxyaryl subsituted diphenyl ureas as raf

kinase inhibitors

INVENTOR(S):

Riedl, Bernd, Wuppertal, Germany, Federal Republic of

Dumas, Jacques, Orange, CT, United States Khire, Uday, Hamden, CT, United States

Lowinger, Timothy B., Nishinomiya City, Japan Scott, William J., Guilford, CT, United States

Smith, Roger A., Madison, CT, United States Wood, Jill E., Hamden, CT, United States Monahan, Mary-Katherine, Hamden, CT, United States Natero, Reina, Hamden, CT, United States Renick, Joel, Milford, CT, United States Sibley, Robert N., North Haven, CT, United States

NUMBER KIND DATE

PATENT INFORMATION: APPLICATION INFO.: RELATED APPLN. INFO.: US 2001011135 A1 20010802 US 2001-773659 A1 20010202 (9)

Continuation of Ser. No. US 1999-425228, filed on 22 Oct 1999, PENDING Continuation-in-part of Ser. No. US

1999-257266, filed on 25 Feb 1999, ABANDONED

NUMBER DATE

PRIORITY INFORMATION:

US 1999-115877P 19990113 (60)

DOCUMENT TYPE:

Utility

FILE SEGMENT:

APPLICATION

LEGAL REPRESENTATIVE: MILLE

MILLEN, WHITE, ZELANO & BRANIGAN, P.C., Suite 1400,

Arlington Courthouse Plaza 1, Arlington, VA, 22201

NUMBER OF CLAIMS: 6' EXEMPLARY CLAIM: 1

LINE COUNT: 3686

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

[0003] The p21.sup.ras oncogene is a major contributor to the development and progression of human solid cancers and is mutated in 30% of all human cancers (Bolton et al. Ann. Rep. Med. Chem. 1994, 29, 165-74; Bos. Cancer Res. 1989, 49, 4682-9). In its normal, unmutated form, the ras protein is a key element of the signal transduction. . . GDP-bound resting form is strictly controlled by ras' endogenous GTPase activity and other regulatory proteins. In the ras mutants in cancer cells, the endogenous GTPase activity is alleviated and, therefore, the protein delivers constitutive growth signals to downstream effectors such as the enzyme raf kinase. This leads to the cancerous growth of the cells which carry these mutants (Magnuson et al. Semin. Cancer Biol. 1994, 5, 247-53). It has been shown that inhibiting the effect of active ras by inhibiting the raf kinase. . . antisense oligodeoxynucleotides) has been correlated in vitro and in vivo with inhibition of the growth of a variety of human tumor types

SUMM

(Monia et al., Nat. Med. 1996, 2, 668-75).

. . . compositions for human or veterinary use where inhibition of the raf kinase pathway is indicated, e.g., in the treatment of tumors and/or cancerous cell growth mediated by raf kinase. In particular, the compounds are useful in the treatment of human or animal solid cancers, e.g., murine cancer, since the progression of these cancers is dependent upon the ras protein signal transduction cascade and therefore susceptible to treatment by interruption of the cascade, i.e., by inhibiting raf kinase. Accordingly, the compounds of the invention are useful in treating cancers, including solid cancers, such as, for example, carcinomas (e.g., of the lungs, pancreas, thyroid, bladder or colon), myeloid disorders (e.g., myeloid leukemia) or adenomas (e.g., villous colon adenoma).

 \mbox{SUMM} . . . is directed to compounds which inhibit the enzyme raf kinase

and also compounds, compositions and methods for the treatment of cancerous cell growth mediated by raf kinase wherein a compound of Formula I is administered or pharmaceutically acceptable salt thereof.

CLM What is claimed is:

- 62. A method for the treatment of a **cancerous** cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 1.
- 63. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 33.
- 64. A method for the treatment of a **cancerous** cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 38.
- 65. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administering a compound of Formula I of claim 39.
- 66. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of 3-tert butyl phenyl ureas. 67. A method for the treatment of a cancerous cell growth mediated by raf kinase, comprising administrating a compound selected from the group consisting of the 3-tert butyl phenyl. 284461-36-5P 284461-34-3P 284461-35-4P IT228418-48-2P 284461-33-2P 284461-41-2P 284461-40-1P 284461-37-6P 284461-38-7P 284461-39-8P 284461-46-7P 284461-42-3P 284461-43-4P 284461-44-5P 284461-45-6P 284461-48-9P 284461-49-0P 284461-50-3P 284461-51-4P 284461-47-8P 284461-53-6P 284461-54-7P 284461-55-8P 284461-56-9P 284461-52-5P 284461-57-0P 284461-58-1P 284461-59-2P 284461-60-5P 284461-61-6P 284461-65-0P 284461-66-1P 284461-62-7P 284461-63-8P 284461-64-9P 284461-67-2P 284461-68-3P 284461-69-4P 284461-70-7P 284461-71-8P 284461-72-9P **284461-73-0P** 284461-74-1P 284461-75-2P 284461-76-3P 284461-77-4P **284461-78-5P** 284461-79-6P 284461-80-9P 284461-81-0P 284461-82-1P 284461-83-2P 284461-91-2P 284461-84-3P 284461-85-4P 284461-88-7P 284461-90-1P 284461-92-3P 284461-93-4P 284461-94-5P 284461-95-6P 284461-96-7P 284462-01-7P 284462-00-6P 284461-97-8P 284461-98-9P 284461-99-0P 284462-05-1P 284462-07-3P 284462-02-8P 284462-03-9P 284462-04-0P 284462-11-9P 284462-12-0P 284462-08-4P 284462-09-5P 284462-10-8P 284462-18-6P 284462-13-1P 284462-15-3P 284462-16-4P 284462-17-5P 284462-19-7P 284462-20-0P 284462-21-1P 284462-22-2P 284462-23-3P 284462-24-4P 284462-25-5P 284462-26-6P 284462-27-7P 284462-28-8P 284462-29-9P 284462-30-2P 284462-31-3P 284462-32-4P 284462-33-5P 284462-34-6P 284462-35-7P 284462-70-0P 284462-36-8P (prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase

IT 284461-73-0P 284461-78-5P 284461-80-9P

284461-83-2P 284462-28-8P 284462-29-9P

284462-30-2P

(prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase inhibitors)

RN 284461-73-0 USPATFULL

inhibitors)

CN 2-Pyridinecarboxamide, 4-[4-[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284461-83-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284462-28-8 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-29-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-30-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

L9 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2004 ACS on STN GI

AB This invention relates to the prepn. and use of (hetero)aryl ureas ANHCONHB [I; A = L(ML1)q; L = 5- or 6-membered (hetero)aryl, esp. Ph or pyridinyl; M = bridging group; L1 = (hetero)aryl with at least one (un)substituted sulfamoyl, carboxy, or carbamoyl substituent; q = 1-3; B = certain (un)substituted mono- to tricyclic aryl or heteroaryl groups] for the treatment of raf mediated diseases, such as cancer (no data). Approx. 100 invention compds. and numerous intermediates were prepd. For instance, 3-tert-butylaniline was coupled with bis(trichloromethyl)carbonate to form the isocyanate, followed by addn. of 4-(3-N-methylcarbamoylphenoxy)aniline (prepn. given) to afford the urea II.

ACCESSION NUMBER: 2000:493516 HCAPLUS

DOCUMENT NUMBER: 133:120157

TITLE: Preparation of .omega.-carboxy(hetero)aryl substituted

diphenyl ureas as raf kinase inhibitors

INVENTOR(S): Riedl, Bernd; Dumas, Jacques; Khire, Uday; Lowinger,

Timothy B.; Scott, William J.; Smith, Roger A.; Wood,

Jill E.; Monahan, Mary-Katherine; Natero, Reina;

Renick, Joel; Sibley, Robert N.

PATENT ASSIGNEE(S): Bayer Corporation, USA

SOURCE: PCT Int. Appl., 120 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2000042012 A1 20000720 WO 2000-US648 20000112

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,

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PRIORITY APPLN. INFO.:
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OTHER SOURCE(S):
                         MARPAT 133:120157
    . . . B = certain (un)substituted mono- to tricyclic aryl or heteroaryl
     groups] for the treatment of raf mediated diseases, such as cancer
     (no data). Approx. 100 invention compds. and numerous intermediates were
     prepd. For instance, 3-tert-butylaniline was coupled with
     bis(trichloromethyl)carbonate to form.
     284461-33-2P, N-(3-tert-Butylphenyl)-N'-(4-(3-(N-
IT
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     pyridyl]thio]phenyl]urea 284461-74-1P, N-[4-Chloro-3-
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       284462-31-3P, N-[2-Methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[2-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[2-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[2-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[2-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[2-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[2-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[2-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[2-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[2-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[3-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl]-N'-[[3-methoxy-4-(trifluoromethyl)phenyl-[3-methoxy-4-(trifluoromethyl)phenyl-[3-methoxy-4-(trifluoromethyl)phenyl-[3-methoxy-4-(trifluoromethyl)phenyl-[3-met
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       RL: BAC (Biological activity or effector, except adverse); BSU (Biological
       study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
        (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
        (Reactant or reagent); USES (Uses)
            (prepn. of .omega.-carboxy(hetero)aryl substituted di-Ph urea raf
            kinase inhibitors by reacting arylisocyanates with arylamines)
IT
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       RL: BAC (Biological activity or effector, except adverse); BSU (Biological
       study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
       BIOL (Biological study); PREP (Preparation); USES (Uses)
            (prepn. of .omega.-carboxy(hetero)aryl substituted di-Ph urea raf
            kinase inhibitors by reacting arylisocyanates with arylamines)
IT
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                                                                                                         619-08-9,
       2-Chloro-4-nitrophenol
                                              626-61-9, 4-Chloropyridine
                                                                                           883-99-8, Methyl
       3-hydroxy-2-naphthoate
                                              1121-78-4, 5-Hydroxy-2-methylpyridine
                                                                     1664-40-0, N-Phenylethylenediamine
       1215-98-1, 4-(4-Acetylphenoxy)aniline
       1877-71-0, Monomethyl isophthalate
                                                               2038-03-1, 4-(2-Aminoethyl)morpholine
       2252-63-3, N-(4-Fluorophenyl)piperazine
                                                                        2524-67-6, 4-Morpholinoaniline
       2835-99-6, 4-Amino-3-methylphenol
                                                               2905-24-0, 3-Bromobenzenesulfonyl
                        5369-19-7, 3-tert-Butylaniline
                                                                           6310-19-6,
       2-Nitro-4-tert-butylaniline
                                                     6628-77-9, 5-Amino-2-methoxypyridine
       6927-86-2, 4-(4-Acetylphenoxy)aniline hydrochloride
                                                                                           7781-98-8, Ethyl
                                      13154-24-0, Triisopropylsilyl chloride
       3-hydroxybenzoate
                                                                                                      16588-75-3
                                                                      29264-35-5, 4-(3-Carboxy-4-
       25900-61-2, 3-(Methylcarbamoyl)aniline
                                                          30766-22-4, Methyl 5-hydroxynicotinate
       hydroxyphenoxy)-1-nitrobenzene
       30806-83-8, Ethyl 4-isocyanatobenzoate 34803-66-2, N-(2-
                                      36265-31-3, 4-(4-Methylthiophenoxy)-1-nitrobenzene
       Pyridyl)piperazine
        51639-48-6, N-(4-Acetylphenyl)piperazine 73441-86-8
                                                                                           .150009-83-9,
        3-Amino-2-methoxyquinoline 284461-38-7, N-(5-tert-Butyl-2-methoxyphenyl)-
       N'-[4-(1,3-dioxoisoindolin-5-yloxy)phenyl]urea
                                                                                   284461-48-9
```

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284461-76-3, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-284461-76-3)phenyl)-N'-(3-((2-(N-28461-76-3)phenyl)-N'-(3-((2-(N-28461-76-3)phenyl)-N'-(3-((2-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76-3)phenyl)-N'-(3-(N-28461-76
       Methylcarbamoyl)-4-pyridyl)oxy)phenyl)urea 284462-29-9
       284462-72-2, 3-Chloro-6-(N-acetylamino)-4-(trifluoromethyl)anisole
       284462-73-3, 4-Chloro-N-(2-hydroxyethyl)pyridine-2-carboxamide
       284462-74-4
                             284462-76-6
                                                   284462-77-7, 5-tert-Butyl-2-methoxyphenyl
                           284462-78-8, 3-[[2-(N-Methylcarbamoyl)-4-pyridyl]oxy]aniline
       isocyanate
       284462-79-9, 3-(2-Carbamoyl-4-pyridyloxy)aniline
                                                                                       284462-80-2,
                                                                  oxy)aniline 284462-80
284462-82-4, 4-[[2-(N-
       4-(2-Carbamoyl-4-pyridyloxy)aniline
       Ethylcarbamoyl)-4-pyridyl]oxy]aniline 284462-83-5, 4-[[2-(N-
       Methylcarbamoyl)-4-pyridyl]oxy]-3-chloroaniline 284462-85-7,
                                                         284462-86-8, 4-[[2-(N,N-Dimethylcarbamoyl)-
       4-(3-Carbamoylphenoxy)aniline
                                            284462-87-9
                                                                  284462-88-0
                                                                                        284462-89-1,
       4-pyridyl]oxy]aniline
       4-[[2-(N-Isopropylcarbamoyl)-4-pyridyl]oxy]aniline
                                                                                          284462-92-6,
       3-[[2-(N-Methylcarbamoyl)-4-pyridyl]oxy]-4-methylaniline
                                                                                                    284462-93-7,
       4-[3-[N-(2-Morpholinylethyl)carbamoyl]phenoxy]aniline
                                                                                               284462-94-8,
       4-[3-[N-(2-Piperidylethyl)carbamoyl]phenoxy]aniline
                                                                                            284462-95-9,
       4-[3-[N-(Tetrahydrofurylmethyl)carbamoyl]phenoxy]aniline
                                                                                                    284462-96-0
       284462-99-3, 4-Chloro-2-methoxy-5-(trifluoromethyl)phenyl isocyanate
       284670-99-1, 4-(4-Acetylphenoxy)-5-aminopyridine
                                                                                       284671-00-7.
       N-[5-(Trifluoromethyl)-2-methoxyphenyl]-N'-[4-[3-(5-
       methoxycarbonylpyridyl)oxy]phenyl]urea 284671-01-8, N-[5-
       (Trifluoromethyl)-2-methoxyphenyl]-N'-(3-carboxyphenyl)urea
       RL: RCT (Reactant); RACT (Reactant or reagent)
            (prepn. of .omega.-carboxy(hetero)aryl substituted di-Ph urea raf
            kinase inhibitors by reacting arylisocyanates with arylamines)
IT
       883-62-5P, 3-Methoxy-2-naphthoic acid 13041-60-6P, Methyl
                                            27237-21-4P, 4-(3-Carboxyphenoxy)-1-nitrobenzene
       3-methoxy-2-naphthoate
       36089-89-1P, 4-(4-Methylsulfonylphenoxy)-1-nitrobenzene
                                                                                                 41513-02-4P,
       4-Bromo-3-(trifluoromethyl)phenyl isocyanate
                                                                              50727-06-5P,
       5-Hydroxyisoindoline-1,3-dione 51727-15-2P, 4-Chloropyridine-2-carbonyl
                                              54579-63-4P, 4-(3-Carboxyphenoxy)aniline
       chloride hydrochloride
       64064-63-7P, 4-[(2-Methylpyridin-5-yl)oxy]-1-nitrobenzene
                                                       71708-64-0P, 4-[3-(N-
       2-Amino-3-methoxynaphthalene
                                                                        77992-50-8P,
       Methylcarbamoyl)phenoxy]-1-nitrobenzene
       4-Bromo-3-(trifluoromethyl)aniline hydrochloride
                                                                                       119431-22-0P,
       3-Chloro-4-(2,2,2-trifluoroacetylamino)phenol
                                                                                 153435-79-1P,
       N-Methyl-3-bromobenzenesulfonamide
                                                               176977-85-8P, Methyl
       4-chloropyridine-2-carboxylate hydrochloride
                                                                                 220000-87-3P,
       4-Chloro-N-methyl-2-pyridinecarboxamide
                                                                        228401-15-8P,
                                                                                            228401-43-2P,
       2-(N-(Benzyloxycarbonyl)amino)-3-methoxynaphthalene
                                                                                               228401-44-3P,
       4-(3-Methoxycarbonyl-4-methoxyphenoxy)-1-nitrobenzene
       4-(3-Carboxy-4-methoxyphenoxy)-1-nitrobenzene
                                                                                  252061-66-8P,
       5-Hydroxyisoindolin-1-one 284461-73-0P
                                                                      284461-89-8P
       284462-37-9P, 4-[[2-(N-Methylcarbamoyl)-4-pyridyl]oxy]aniline
       284462-38-0P, 5-(4-Nitrophenoxy)isoindoline-1,3-dione
                                                                        284462-40-4P,
       5-(4-Aminophenoxy) isoindoline-1,3-dione
       1-(4-tert-Butyl-2-nitrophenyl)-2,5-dimethylpyrrole
                                                                                          284462-41-5P,
       5-tert-Butyl-2-(2,5-dimethylpyrrolyl)aniline
                                                                                 284462-42-6P,
       4-[[2-(N-Methylcarbamoyl)-4-pyridyl]oxy]-2-methylaniline hydrochloride
                                                      284462-45-9P, 4-Chloro-2-methoxy-5-
                               284462-44-8P
       284462-43-7P
                                                 284462-46-0P, 4-[3-(N-Methylcarbamoyl)-4-
       (trifluoromethyl)aniline
       methoxyphenoxy]-1-nitrobenzene 284462-47-1P, 4-[3-(N-Methylcarbamoyl)-4-
                                              284462-48-2P, 5-(4-Nitrophenoxy)-2-
       methoxyphenoxy]aniline
                                                      284462-49-3P, 5-(4-Aminophenoxy)-2-
       methylisoindoline-1,3-dione
                                                      284462-51-7P, 4-Chloro-2-[N-(2-morpholin-4-
       methylisoindoline-1,3-dione
       ylethyl)carbamoyl]pyridine
                                                     284462-52-8P
                                                                            284462-53-9P,
       4-(1-Oxoisoindolin-5-yloxy)-1-nitrobenzene 284462-54-0P,
```

RN

CN

4-(1-Oxoisoindolin-5-yloxy)aniline 284462-55-1P, 4-(3-284462-56-2P, 4-[3-(N-Ethoxycarbonylphenoxy)-1-nitrobenzene 284462-57-3P Methylcarbamoyl)phenoxy]aniline 284462-58-4P 284462-60-8P, 4-[3-(N-Methylsulfamoyl)phenoxy]-1-284462-59-5P 284462-61-9P, 4-[3-(N-Methylsulfamoyl)phenoxy]aniline nitrobenzene 284462-63-1P, 4-Chloro-N-[2-(triisopropylsilyloxy)ethyl]pyr 284462-62-0P 284462-64-2P 284462-65-3P, 4-[[2idine-2-carboxamide (Methoxycarbonyl)pyridin-5-yl]oxy]-1-nitrobenzene 284462-66-4P 284462-67-5P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'(4-aminophenyl)Urea 284462-68-6P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'(4-284462-69-7P 284462-70-0P 284462-71-1P ethoxycarbonylphenyl)Urea 284462-84-6P, 4-(4-Methylsulfonylphenoxy)-1-aniline 284462-97-1P 284670-98-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of .omega.-carboxy(hetero)aryl substituted di-Ph urea raf kinase inhibitors by reacting arylisocyanates with arylamines)

284461-78-5P 284462-28-8P, N-[2-Methoxy-4-chloro-5-(trifluoromethyl)phenyl]-N'-[4-[[2-(N-methylcarbamoyl)-4-pyridyl]oxy]phenyl]urea **284462-30-2P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of .omega.-carboxy(hetero)aryl substituted di-Ph urea raf kinase inhibitors by reacting arylisocyanates with arylamines) 284461-78-5 HCAPLUS

2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-28-8 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CF INDEX NAME)

RN 284462-30-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

IT 284461-80-9P 284461-83-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of .omega.-carboxy(hetero)aryl substituted di-Ph urea raf kinase inhibitors by reacting arylisocyanates with arylamines)

RN 284461-80-9 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284461-83-2 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CAINDEX NAME)

IT 284462-29-9

RN

CN

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of .omega.-carboxy(hetero)aryl substituted di-Ph urea raf
 kinase inhibitors by reacting arylisocyanates with arylamines)
284462-29-9 HCAPLUS

2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

IT 284461-73-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of .omega.-carboxy(hetero)aryl substituted di-Ph urea raf kinase inhibitors by reacting arylisocyanates with arylamines)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE 'REGISTRY' ENTERED AT 20:57:10 ON 22 JAN 2004

L1 STRUCTURE UPLOADED

L2 1 S L1 SSS SAM

L3 9 S L1 SSS FULL

FILE 'HCAPLUS, USPATFULL' ENTERED AT 20:58:23 ON 22 JAN 2004

=> s 13

L4 40 L3

=> s 14 and arthrit?

L5 6 L4 AND ARTHRIT?

=> dup rem 15

PROCESSING COMPLETED FOR L5

L6 6 DUP REM L5 (0 DUPLICATES REMOVED)

=> d 16 abs ibib kwic hitstr 1-6

L6 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN GI

$$\begin{array}{c|c} C1 & O & O & O \\ \hline & N & N & N \\ \hline & N & N & N \\ \hline \end{array}$$

AB The title ureas contg. a pyridine, quinoline, or isoquinoline functionality which is oxidized at the nitrogen heteroatom MLBNHCONHA [A = (un)substituted Ph, naphthyl, 5-6 membered monocyclic heteroaryl, 8-10 membered bicyclic heteroaryl; B = (un)substituted phenylene, naphthylene, 5-6 membered monocyclic heteroarylene, 8-10 membered bicyclic heteroarylene; L = (CH2)mO(CH2)l, (CH2)m(CH2)l, (CH2)mCO(CH2)l, etc.; m, l = 0-4; M = (un)substituted pyridine-1-oxide, quinoline-1-oxide, isoquinoline-1-oxide; with the provisos] which are useful in the treatment of (i) raf mediated diseases, for example, cancer, (ii) p38 mediated

diseases such as inflammation and osteoporosis, and (iii) VEGF mediated diseases such as angiogenesis disorders, were claimed. Prepn. of two ureas such as I $[R=H,\ Me]$ which are not compds. of the invention, and have been distinguished from the compds. of the invention by a proviso, was described. Pharmaceutical compn. comprising the title ureas was claimed.

ACCESSION NUMBER:

2003:656581 HCAPLUS

DOCUMENT NUMBER:

139:197370

TITLE:

Preparation of aryl ureas containing pyridine, quinoline and isoquinoline N-oxide functionality as

kinase inhibitors

INVENTOR(S):

Dumas, Jacques; Scott, William J.; Riedl, Bernd

PATENT ASSIGNEE(S):

Bayer Corporation, USA PCT Int. Appl., 67 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

1 -

PATENT INFORMATION:

PATENT NO. K			KI	ND DATE APPLICATION NO.					ο.	DATE							
WO	WO 2003068229			A1 20030821			WO 2003-US4110				0	20030211					
	W:	ΑE,	AG,	AL,	AM,	AT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
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		RU,	ТJ,	MT													
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		CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,
		NL,	PT,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,
		ML,	MR,	NE,	SN,	TD,	TG										
US 2003216396 A1 20031120						US 2003-361850 20030211 ·											
PRIORITY APPLN. INFO.: US 2002-354935P P 20020211																	
OTHER SOURCE(S): MARPAT 139:197370																	

IT Arthritis

Shock (circulatory collapse)

(septic, treatment of; prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline N-oxide functionality as kinase inhibitors)

IT Alzheimer's disease

Asthma

Atherosclerosis Inflammation

Lymphoma

Multiple sclerosis

Myelodysplastic syndromes

Osteoporosis

Periodontium, disease

Psoriasis

Rheumatic fever

Rheumatoid arthritis

Sepsis Silicosis

Tuberculosis

(treatment of; prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline N-oxide functionality as kinase inhibitors)

IT 123-30-8, 4-Aminophenol 320-51-4 176977-85-8, Methyl

4-chloro-2-pyridinecarboxylate hydrochloride 284461-73-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline N-oxide functionality as kinase inhibitors)

IT 583840-03-3P 583840-04-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline N-oxide functionality as kinase inhibitors)

IT 284461-73-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline N-oxide functionality as kinase inhibitors)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

IT 583840-03-3P

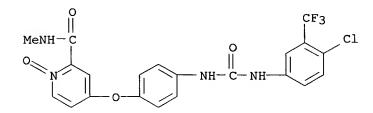
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline

N-oxide functionality as kinase inhibitors)

RN 583840-03-3 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl-, 1-oxide (9CI) (CA INDEX NAME)



REFERENCE COUNT:

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN GI

2

AB The title compds. ANHCONHB [A, B = (un) substituted Ph, naphthyl, 5-6 membered monocyclic heteroaryl, etc.], useful for treating diseases mediated by the VEGF induced signal transduction pathway characterized by abnormal angiogenesis or hyperpermeability processes, were claimed. Prepns. of three title ureas are described. E.g., a 3-step synthesis of the urea I (starting from Me 4-chloro-2-pyridinecarboxylate hydrochloride), was given. The KDR (VEGFR2) assay for testing the title ureas is described.

ACCESSION NUMBER:

2003:656580 HCAPLUS

DOCUMENT NUMBER:

139:197369

TITLE:

Preparation of aryl ureas with angiogenesis inhibiting

activity

INVENTOR(S):

Dumas, Jacques; Scott, William J.; Elting, James;

Hatoum-Makdad, Holia

PATENT ASSIGNEE(S):

Bayer Corporation, USA PCT Int. Appl., 83 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

SOURCE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
                     KIND DATE
                                           APPLICATION NO.
                                                            DATE
    WO 2003068228
                      A1
                            20030821
                                          WO 2003-US4103
                                                            20030211
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
             NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
            ML, MR, NE, SN, TD, TG
    US 2003207870
                                           US 2003-361858
                      A1
                           20031106
                                                            20030211
                                        US 2002-354950P P 20020211
PRIORITY APPLN. INFO.:
OTHER SOURCE(S):
                        MARPAT 139:197369
    Alzheimer's disease
    Asthma
```

Atherosclerosis

Lymphoma

Multiple sclerosis

Myelodysplastic syndromes

Psoriasis

Rheumatic fever

Rheumatoid arthritis

Sepsis Silicosis

Tuberculosis

(treatment of; prepn. of aryl ureas with angiogenesis inhibiting activity)

ΙT 284461-44-5P **284461-73-0P** 284461-74-1P

> RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of aryl ureas with angiogenesis inhibiting activity)

IT 284461-73-0P

> RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(prepn. of aryl ureas with angiogenesis inhibiting activity)

RN 284461-73-0 HCAPLUS

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 6 USPATFULL on STN

AB This invention relates to new aryl ureas and methods for their synthesis. The inventive compounds are useful in the treatment of (i) raf mediated diseases, for example, cancer, (ii) p38 mediated diseases such as inflammation and osteoporosis, and (iii) VEGF mediated diseases such as angiogenesis disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:

2003:307010 USPATFULL

TITLE:

Aryl ureas as kinase inhibitors

INVENTOR(S):

Dumas, Jacques, Orange, CT, UNITED STATES

Scott, William J., Guilford, CT, UNITED STATES

Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF

Chien, Du-Shieng, Guilford, CT, UNITED STATES

Nassar, Ala, Milford, CT, UNITED STATES Lee, Wendy, Hamden, CT, UNITED STATES Bjorge, Susan, Milford, CT, UNITED STATES Musza, Laszlo L., Guilford, CT, UNITED STATES

PATENT ASSIGNEE(S):

BAYER CORPORATION, Pittsburgh, PA, UNITED STATES (U.S.

corporation)

KIND DATE NUMBER

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US 2003-216446 A1 A1
PATENT INFORMATION:
                                                20031120
APPLICATION INFO.:
                                                20030211 (10)
                              NUMBER
                                           DATE
PRIORITY INFORMATION:
                        US 2002-354937P
                                          20020211 (60)
DOCUMENT TYPE:
                        Utility
FILE SEGMENT:
                       APPLICATION
LEGAL REPRESENTATIVE:
                       MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON
                        BLVD., SUITE 1400, ARLINGTON, VA, 22201
NUMBER OF CLAIMS:
EXEMPLARY CLAIM:
                        1
                        1856
LINE COUNT:
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       [0007] Clinical studies have linked TNF.alpha. production and/or
       signaling to a number of diseases including rheumatoid arthritis
      (Maini. J. Royal Coll. Physicians London 1996, 30, 344). In addition,
       excessive levels of TNF.alpha. have been implicated in a. . . 1996,
       149, 195), myelodysplastic syndromes (Raza et al. Int. J. Hematol. 1996,
       63, 265), systemic lupus erythematosus (Maury et al. Arthritis
       Rheum. 1989, 32, 146), biliary cirrhosis (Miller et al. Am. J.
       Gasteroenterolog. 1992, 87, 465), bowel necrosis (Sun et al..
SUMM
       . . to the tissue inhibitors of metalloproteinases (TIMPs). These
       include osteoarthritis (Woessner et al. J. Biol. Chem. 1984, 259, 3633),
       rheumatoid arthritis (Mullins et al. Biochim. Biophys. Acta
       1983, 695, 117; Woolley et al. Arthritis Rheum. 1977, 20,
       1231; Gravallese et al. Arthritis Rheum. 1991, 34, 1076),
       septic arthritis (Williams et al. Arthritis Rheum.
       1990, 33, 533), tumor metastasis (Reich et al. Cancer Res. 1988, 48,
       3307; Matrisian et al. Proc. Nat'l. Acad..
SUMM
       . . . enzyme provides an approach to the treatment of the above
       listed diseases including osteoporosis and inflammatory disorders such
       as rheumatoid arthritis and COPD (Badger, A. M.; Bradbeer, J.
       N.; Votta, B.; Lee, J. C.; Adams, J. L.; Griswold, D. E. J..
SUMM
       [0016] In rheumatoid arthritis (RA), the in-growth of vascular
       pannus may be mediated by production of angiogenic factors. Levels of
       immunoreactive VEGF are high. . . synovial fluid of RA patients,
       while VEGF levels are low in the synovial fluid of patients with other
       forms of arthritis of with degenerative joint disease (Koch et
       al. J. Immunol. 1994, 152, 4149). The angiogenesis inhibitor AGM-170 has
       been shown to prevent neovascularization of the joint in the rat
       collagen arthritis model (Peacock et al. J. Exper. Med. 1992,
       175, 1135).
IT
      284461-74-1P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-carbamoyl(4-
      pyridyloxy)phenyl]urea
                              284462-18-6P 583840-03-3P
                   583840-09-9P
      583840-04-4P
        (prepn. of aryl ureas for therapeutic use as kinase inhibitors)
IT
      99586-65-9P, 4-Chloro-2-pyridinecarboxamide 284461-73-0P,
      N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)(4-
      pyridyloxy)phenyl]urea
                              284462-80-2P
        (prepn. of aryl ureas for therapeutic use as kinase inhibitors)
IT
    583840-03-3P
        (prepn. of aryl ureas for therapeutic use as kinase inhibitors)
RN
     583840-03-3 USPATFULL
     2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c
CN
       arbonyl]amino]phenoxy]-N-methyl-, 1-oxide (9CI) (CA INDEX NAME)
```

IT 284461-73-0P, N-[4-Chloro-3-(trifluoromethyl)phenyl]-N'-[4-[2-(N-methylcarbamoyl)(4-pyridyloxy)phenyl]urea

(prepn. of aryl ureas for therapeutic use as kinase inhibitors)

RN 284461-73-0 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L6 ANSWER 4 OF 6 USPATFULL on STN

AB This invention relates to urea compounds containing a pyridine, quinoline, or isoquinoline functionality which is oxidized at the nitrogen heteroatom and which are useful in the treatment of (i) raf mediated diseases, for example, cancer, (ii) p38 mediated diseases such as inflammation and osteoporosis, and (iii) VEGF mediated diseases such as angiogenesis disorders.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:306960 USPATFULL

TITLE: Pyridine, quinoline, and isoquinoline N-oxides as

kinase inhibitors

INVENTOR(S): Dumas, Jacques, Bethany, CT, UNITED STATES

Scott, William J., Guilford, CT, UNITED STATES

Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): BAYER CORPORATION, Pittsburgh, PA (U.S. corporation)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: 35 EXEMPLARY CLAIM: 1 LINE COUNT: 2076

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM [0007] Clinical studies have linked TNF.alpha. production and/or signaling to a number of diseases including rheumatoid arthritis (Maini. J. Royal Coll. Physicians London 1996, 30, 344). In addition, excessive levels of TNF.alpha. have been implicated in a. . . 1996, 149, 195), myelodysplastic syndromes (Raza et al. Int. J. Hematol. 1996, 63, 265), systemic lupus erythematosus (Maury et al. Arthritis Rheum. 1989, 32, 146), biliary cirrhosis (Miller et al. Am. J. Gasteroenterolog. 1992, 87, 465), bowel necrosis (Sun et al. . .

SUMM . . . to the tissue inhibitors of metalloproteinases (TIMPs). These include osteoarthritis (Woessner et al. J. Biol. Chem. 1984, 259, 3633), rheumatoid arthritis (Mullins et al. Biochim. Biophys. Acta 1983, 695, 117; Woolley et al. Arthritis Rheum. 1977, 20, 1231; Gravallese et al. Arthritis Rheum. 1991, 34, 1076), septic arthritis (Williams et al. Arthritis Rheum. 1990, 33, 533), tumor metastasis (Reich et al. Cancer Res. 1988, 48, 3307; Matrisian et al. Proc. Nat'l. Acad. . .

SUMM . . . enzyme provides an approach to the treatment of the above listed diseases including osteoporosis and inflammatory disorders such as rheumatoid arthritis and COPD (Badger, A. M.; Bradbeer, J. N.; Votta, B.; Lee, J. C.; Adams, J. L.; Griswold, D. E. J. . . .

SUMM [0016] In rheumatoid arthritis (RA), the in-growth of vascular pannus may be mediated by production of angiogenic factors. Levels of immunoreactive VEGF are high. . . synovial fluid of RA patients, while VEGF levels are low in the synovial fluid of patients with other forms of arthritis of with degenerative joint disease (Koch et al. J. Immunol. 1994, 152, 4149). The angiogenesis inhibitor AGM-170 has been shown to prevent neovascularization of the joint in the rat collagen arthritis model (Peacock et al. J. Exper. Med. 1992, 175, 1135).

SUMM . . . by p38. Accordingly, these compounds are useful therapeutic agents for such acute and chronic inflammatory and/or immunomodulatory diseases as rheumatoid arthritis and osteoperosis.

SUMM . . . macular degeneration; psoriasis, or bullous disorder associated with subepidermal blister formation, including bullous pemphigoid, erythema multiforme, or dermatitis herpetiformis, rheumatoid arthritis, osteoarthritis, septic arthritis, tumor metastasis, periodontal disease, cornal ulceration, proteinuria, coronary thrombosis from atherosclerotic plaque, aneurismal aortic, birth control, dystrophobic epidermolysis bullosa, degenerative. . . CLM What is claimed is:

. conditions in humans and/or other mammals: tumor growth, retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity, age related macular degeneration; rheumatoid arthritis, psoriasis, a bullous disorder associated with subepidermal blister formation, including bullous pemphigoid, erythema multiforme, or dermatitis herpetiformis.

. humans and/or other mammals: tumor growth, retinopathy, diabetic retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity, age related macular degeneration; rheumatoid arthritis, psoriasis, bullous disorder associated with

subepidermal blister formation, bullous pemphigoid, erythema multiforme, and dermatitis herpetiformis, in combination with an infectious. . . ischemic retinal-vein occlusion, age related macular degeneration; psoriasis, bullous disorder associated with subepidermal blister formation, erythema multiforme, dermatitis herpetiformis, rheumatoid arthritis, osteoarthritis, septic arthritis, tumor metastasis, periodontal disease, cornal ulceration, proteinuria and coronary thrombosis from atherosclerotic plaque, aneurismal aortic, birth control, dystrophobic epidermolysis bullosa, . . .

IT 123-30-8, 4-Aminophenol 320-51-4 176977-85-8, Methyl

4-chloro-2-pyridinecarboxylate hydrochloride 284461-73-0

(prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline N-oxide functionality as kinase inhibitors)

IT **583840-03-3P** 583840-04-4P

(prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline N-oxide functionality as kinase inhibitors)

IT 284461-73-0

(prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline N-oxide functionality as kinase inhibitors)

RN 284461-73-0 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

IT 583840-03-3P

(prepn. of aryl ureas contg. pyridine, quinoline and isoquinoline N-oxide functionality as kinase inhibitors)

RN 583840-03-3 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl-, 1-oxide (9CI) (CA INDEX NAME)

L6 ANSWER 5 OF 6 USPATFULL on STN

AB This invention relates to methods of using aryl ureas to treat diseases mediated by the VEGF induced signal transduction pathway characterized by abnormal angiogenesis or hyperpermeability processes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:294852 USPATFULL

Aryl ureas with angiogenisis inhibiting activity TITLE:

Dumas, Jacques, Orange, CT, UNITED STATES INVENTOR(S):

Scott, William J., Guilford, CT, UNITED STATES

Elting, James, Madison, CT, UNITED STATES

Hatoum-Makdad, Holia, Hamden, CT, UNITED STATES

PATENT ASSIGNEE(S): BAYER CORPORATION, Pittsburgh, PA. (U.S. corporation)

> DATE NUMBER KIND

PATENT INFORMATION:

US 2003207870 A1 20031106 US 2003-361858 A1 20030211 A1 20030211 (10) APPLICATION INFO.:

> NUMBER DATE _____

US 2002-354950P 20020211 (60) PRIORITY INFORMATION:

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1 LINE COUNT: 2356

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

[0009] In rheumatoid arthritis (RA), the in-growth of vascular pannus may be mediated by production of angiogenic factors. Levels of immunoreactive VEGF are high. . . synovial fluid of RA patients, while VEGF levels were low in the synovial fluid of patients with other forms of arthritis of with degenerative joint disease (Koch et al. J. Immunol. 1994, 152, 4149). The angiogenesis inhibitor AGM-170 has been shown to prevent neovascularization of the joint in the rat collagen arthritis model (Peacock et al. J. Exper. Med. 1992, 175, 1135).

SUMM . . . other mammals: tumor growth, retinopathy, including diabetic retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity and age related macular degeneration; rheumatoid arthritis, psoriasis, or bullous disorder associated with subepidermal blister formation, including bullous pemphigoid, erythema multiforme, or dermatitis herpetiformis, which comprises administering.

. . . humans and/or other mammals: tumor growth, retinopathy, SUMM diabetic retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity, age related macular degeneration; rheumatoid arthritis, psoriasis, bullous disorder associated with subepidermal blister formation, bullous pemphigoid, erythema multiforme, and dermatitis herpetiformis in combination with another condition.

SUMM [0133] tumor growth, retinopathy, diabetic retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity, age related macular degeneration; rheumatoid arthritis, psoriasis, bullous disorder associated with subepidermal blister formation, bullous pemphigoid, erythema multiforme, and dermatitis herpetiformis,

. . treated include tumor growth, retinopathy, including diabetic SUMM retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity and age related macular degeneration; rheumatoid arthritis, psoriasis, or a bullous disorder associated with subepidermal blister

formation, including bullous pemphigoid, erythema multiforme, and dermatitis herpetiformis.

SUMM

. . . of the conditions above (tumor growth, retinopathy, diabetic retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity, age related macular degeneration; rheumatoid arthritis, psoriasis, bullous disorder associated with subepidermal blister formation, bullous pemphigoid, erythema multiforme, and dermatitis herpetiformis) and another condition selected from. . .

SUMM

. . . of the conditions above (tumor growth, retinopathy, diabetic retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity, age related macular degeneration; rheumatoid arthritis, psoriasis, bullous disorder associated with subepidermal blister formation, bullous pemphigoid, erythema multiforme, and dermatitis herpetiformis) and an infectious disease selected. . . What is claimed is:

CLM

IT

. conditions in humans and/or other mammals: tumor growth, retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity, age related macular degeneration; rheumatoid arthritis, psoriasis, a bolos disorder associated with subepidermal blister formation, including bullous pemphigoid, erythema multiforme, or dermatitis herpetiformis.

. . . conditions in humans and/or other mammals: tumor growth, retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity, age related macular degeneration; rheumatoid arthritis, psoriasis, a bullous disorder associated with subepidermal blister formation, including bullous pemphigoid, erythema multiforme, or dermatitis herpetiformis in combination with. . .

. humans and/or other mammals: tumor growth, retinopathy, diabetic retinopathy, ischemic retinal-vein occlusion, retinopathy of prematurity, age related macular degeneration; rheumatoid arthritis, psoriasis, bullous disorder associated with subepidermal blister formation, bullous pemphigoid, erythema multiforme, and dermatitis herpetiformis, in combination with an infectious. . .

284461-44-5P **284461-73-0P** 284461-74-1P

(prepn. of aryl ureas with angiogenesis inhibiting activity)

IT 284461-73-0P

(prepn. of aryl ureas with angiogenesis inhibiting activity)

RN 284461-73-0 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

L6 ANSWER 6 OF 6 USPATFULL on STN

AB This invention relates to the use of a group of aryl ureas in treating p38 mediated diseases, and pharmaceutical compositions for use in such

therapy.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

2003:153423 USPATFULL ACCESSION NUMBER:

Omega-carboxy aryl substituted diphenyl ureas as p38 TITLE:

kinase inhibitors

Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF INVENTOR(S):

Dumas, Jacques, Orange, CT, UNITED STATES Khire, Uday, Handen, CT, UNITED STATES Lowinger, Timothy B., Nishinomiya, JAPAN William, Scott J., Guilford, CT, UNITED STATES Smith, Roger A., Madison, CT, UNITED STATES Wood, Jill E., Hamden, CT, UNITED STATES

Monahan, Mary-Katherine, Hamden, CT, UNITED STATES

Naero, Reina, Hamden, CT, UNITED STATES Renick, Joel, Milford, CT, UNITED STATES

Sibley, Robert N., North Haven, CT, UNITED STATES

NUMBER KIND DATE ______

PATENT INFORMATION:

US 2003105091 A1 20030605

APPLICATION INFO .:

US 2002-86417 A1 20020304 (10)

Continuation of Ser. No. US 1999-425229, filed on 22 RELATED APPLN. INFO.:

Oct 1999, ABANDONED Continuation-in-part of Ser. No. US

1999-257265, filed on 25 Feb 1999, ABANDONED

DATE NUMBER _____

PRIORITY INFORMATION:

US 1999-115878P 19990113 (60)

DOCUMENT TYPE: FILE SEGMENT:

Utility APPLICATION

LEGAL REPRESENTATIVE:

MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

1

LINE COUNT:

4076

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

[0003] Two classes of effector molecules which are critical for the

progression of rheumatoid arthritis are pro-inflammatory

cytokines and tissue degrading proteases. Recently, a family of kinases

was described which is instrumental in controlling the. .

[0006] Clinical studies have linked TNF.alpha. production and/or SUMM

signaling to a number of diseases including rheumatoid arthritis (Maini. J. Royal Coll. Physicians London 1996, 30, 344). In addition,

excessive levels of TNF.alpha. have been implicated in a. . . 1996,

149, 195), myelodysplastic syndromes (Raza et al. Int. J. Hematol. 1996,

63, 265), systemic lupus erythematosus (Maury et al. Arthritis

Rheum. 1989, 32, 146), biliary cirrhosis (Miller et al. Am. J.

Gasteroenterolog. 1992, 87, 465), bowel necrosis (Sun et al..

. . . to the tissue inhibitors of metalloproteinases (TIMPs). These SUMM

include osteoarthritis (Woessner et al. J. Biol. Chem. 1984, 259, 3633), rheumatoid arthritis (Mullins et al. Biochim. Biophys. Acta

1983, 695, 117; Woolley et al. Arthritis Rheum. 1977, 20,

1231; Gravallese et al. Arthritis Rheum. 1991, 34, 1076),

septic arthritis (Williams et al. Arthritis Rheum. 1990, 33, 533), tumor metastasis (Reich et al. Cancer Res. 1988, 48,

3307; Matrisian et al. Proc. Nat'l. Acad.. .

```
. . . edema in the rat paw, arachadonic acid-induced peritonitis in
SUMM
       the mouse, fetal rat long bone resorption, murine type II
       collagen-induced arthritis, and Fruend's adjuvant-induced
       arthritis in the rat. Thus, inhibitors of p38 will be useful in
       treating diseases mediated by one or more of the.
SUMM
       [0011] The need for new therapies is especially important in the case of
       arthritic diseases. The primary disabling effect of
       osteoarthritis, rheumatoid arthritis and septic
       arthritis is the progressive loss of articular cartilage and
       thereby normal joint function. No marketed pharmaceutical agent is able
       to prevent.
       [0014] Accordingly, these compounds are useful therapeutic agents for
SUMM
       such acute and chronic inflammatory and/or immunomodulatory diseases as
       rheumatoid arthritis, osteoarthritis, septic arthritis
       , rheumatic fever, bone resorption, postmenopausal osteoperosis, sepsis,
       gram negative sepsis, septic shock, endotoxic shock, toxic shock
       syndrome, systemic inflammatory response.
CLM
      What is claimed is:
         as in claim 1 wherein the condition within a host treated by
       administering a compound of formula I is rheumatoid arthritis,
       osteoarthritis, septic arthritis, tumor metastasis,
       periodontal disease, corneal ulceration, proteinuria, coronary
       thrombosis from atherosclerotic plaque, aneurysmal aortic, birth
       control, dystrophobic epidermolysis bullosa, degenerative.
                     284461-33-2P
                                    284461-34-3P
                                                   284461-35-4P
                                                                  284461-36-5P
IT
      228418-48-2P
      284461-37-6P
                     284461-38-7P
                                    284461-39-8P
                                                   284461-40-1P
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                                                   284461-45-6P
                                                                  284461-46-7P
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      284461-72-9P 284461-73-0P
                                  284461-74-1P
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      284461-76-3P
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                     284461-85-4P
                                    284461-88-7P
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      284461-92-3P
                     284461-93-4P
                                    284461-94-5P
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                                                                  284461-96-7P
                     284461-98-9P
                                    284461-99-0P
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                                                                  284462-01-7P
      284461-97-8P
      284462-02-8P
                                                   284462-05-1P
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                    284462-03-9P
                                    284462-04-0P
                     284462-09-5P
                                    284462-10-8P
                                                   284462-11-9P
                                                                  284462-12-0P
      284462-08-4P
                     284462-15-3P
                                    284462-16-4P
                                                   284462-17-5P
                                                                  284462-18-6P
      284462-13-1P
                                                   284462-22-2P
                                                                  284462-23-3P
      284462-19-7P
                     284462-20-0P
                                    284462-21-1P
                                                   284462-27-7P
      284462-24-4P
                     284462-25-5P
                                    284462-26-6P
      284462-28-8P 284462-29-9P 284462-30-2P
                                                                  284462-35-7P
      284462-31-3P
                     284462-32-4P
                                    284462-33-5P
                                                   284462-34-6P
                     284462-70-0P
      284462-36-8P
        (prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase
        inhibitors)
   284461-73-0P 284461-78-5P 284461-80-9P
      284461-83-2P 284462-28-8P 284462-29-9P
      284462-30-2P
        (prepn. of .omega.-carboxy aryl substituted di-Ph ureas as p38 kinase
        inhibitors)
RN
     284461-73-0 USPATFULL
     2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c
CN
```

arbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-78-5 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]c arbonyl]amino]-3-methylphenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284461-80-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)(CA INDEX NAME)

RN 284461-83-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-3-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI)
(CA INDEX NAME)

RN 284462-28-8 USPATFULL

CN 2-Pyridinecarboxamide, 4-[4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl-(9CI) (CA INDEX NAME)

RN 284462-29-9 USPATFULL

CN 2-Pyridinecarboxamide, 4-[3-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

RN 284462-30-2 USPATFULL

CN 2-Pyridinecarboxamide, 4-[2-chloro-4-[[[[4-chloro-2-methoxy-5-(trifluoromethyl)phenyl]amino]carbonyl]amino]phenoxy]-N-methyl- (9CI) (CA INDEX NAME)

10/086417

FILE 'HCAPLUS' ENTERED AT 21:13:28 ON 22 JAN 2004
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L10 5 L7 NOT L9

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PROCESSING COMPLETED FOR L10

L11 5 DUP REM L10 (0 DUPLICATES REMOVED)

=> d l11 ibib 1-5

L11 ANSWER 1 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2003:294854 USPATFULL

TITLE: OMEGA-CARBOXYARYL SUBSTITUTED DIPHENYL UREAS AS RAF

KINASE INHIBITORS

INVENTOR(S): Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF

Dumas, Jacques, Orange, CT, UNITED STATES Khire, Uday, Hamden, CT, UNITED STATES

Lowinger, Timothy B., Nishinomiya City, JAPAN Scott, William J., Guilford, CT, UNITED STATES Smith, Roger A., Madison, CT, UNITED STATES Wood, Jill E., Hamden, CT, UNITED STATES

Monahan, Mary-Katherine, Hamden, CT, UNITED STATES

electro de la servicio

Natero, Reina, Hamden, CT, UNITED STATES Renick, Joel, Milford, CT, UNITED STATES

Sibley, Robert N., North Haven, CT, UNITED STATES

PATENT ASSIGNEE(S): BAYER CORPORATION, Pittsburgh, PA (non-U.S.

corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2003207872 A1 20031106

APPLICATION INFO.: US 2002-42226 A1 20020111 (10)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: 67
EXEMPLARY CLAIM: 1
LINE COUNT: 3713

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 2 OF 5 USPATFULL on STN

ACCESSION NUMBER: 2003:258389 USPATFULL

TITLE: omega-carboxyaryl substituted diphenyl ureas as raf

kinase inhibitors

INVENTOR(S): Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF

Dumas, Jacques, Orange, CT, UNITED STATES Khire, Uday, Hamden, CT, UNITED STATES

Lowinger, Timothy B., Nishinomiya City, JAPAN

PATENT ASSIGNEE(S):

Scott, William J., Guilford, CT, UNITED STATES Smith, Roger A., Madison, CT, UNITED STATES Wood, Jill E., North Haven, CT, UNITED STATES Monahan, Mary-Katherine, Hamden, CT, UNITED STATES

Natero, Reina, Hamden, CT, UNITED STATES Renick, Joel, San Diego, CA, UNITED STATES

Sibley, Robert N., North Haven, CT, UNITED STATES

BAYER CORPORATION, Piittsburgh, PA (non-U.S.

corporation)

NUMBER KIND DATE ______ US 2003181442 A1 20030925 PATENT INFORMATION: US 2001-993647 A1 <u>2001112</u>7 (9) APPLICATION INFO.:

DOCUMENT TYPE: Utility APPLICATION FILE SEGMENT:

MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON LEGAL REPRESENTATIVE:

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: EXEMPLARY CLAIM: 1 3729 LINE COUNT:

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 3 OF 5 USPATFULL on STN

2003:207917 USPATFULL ACCESSION NUMBER:

Omega-carboxyaryl substituted diphenyl ureas as raf TITLE:

kinase inhibitors

Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF INVENTOR(S):

Dumas, Jacques, Orange, CT, UNITED STATES Khire, Uday, Hamden, CT, UNITED STATES

Lowinger, Timothy B., Nishinomiya City, JAPAN Scott, William J., Guilford, CT, UNITED STATES Smith, Roger A., Madison, CT, UNITED STATES

Wood, Jill E., Hamden, CT, UNITED STATES

Monahan, Mary-Katherine, Hamden, CT, UNITED STATES

Natero, Reina, Hamden, CT, UNITED STATES Renick, Joel, Milford, CT, UNITED STATES

Sibley, Robert N., North Haven, CT, UNITED STATES BAYER CORPORATION, Pittsburgh, PA, 15205 (non-U.S.

corporation)

NUMBER KIND DATE US 2003144278 A1 20030731 US 2002-283248 A1 20021030 (10) PATENT INFORMATION: APPLICATION INFO.:

Continuation of Ser. No. US 2002-42203, filed on 11 Jan RELATED APPLN. INFO.:

2002, PENDING

NUMBER DATE

PRIORITY INFORMATION: US 2001-367380P 20010112 (60)

DOCUMENT TYPE: Utility FILE SEGMENT: APPLICATION

MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON LEGAL REPRESENTATIVE:

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS: 67

EXEMPLARY CLAIM:

PATENT ASSIGNEE(S):

LINE COUNT:

3733

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 4 OF 5 USPATFULL on STN

ACCESSION NUMBER:

2002:295343 USPATFULL

TITLE:

Inhibition of RAF kinase using quinolyl, isoquinolyl or

pyridyl ureas

INVENTOR(S):

Dumas, Jacques, Orange, CT, UNITED STATES

Riedl, Bernd, Wuppertal, GERMANY, FEDERAL REPUBLIC OF

Khire, Uday, Hamden, CT, UNITED STATES Wood, Jill E., Hamden, CT, UNITED STATES

Robert, Sibley N., North Haven, CT, UNITED STATES Monahan, Mary-Katherine, Hamden, CT, UNITED STATES

Renick, Joel, Milford, CT, UNITED STATES Gunn, David E., Hamden, CT, UNITED STATES Lowinger, Timothy B., Nishinomiya City, JAPAN Scott, William J., Guilford, CT, UNITED STATES Smith, Roger A., Madison, CT, UNITED STATES

PATENT ASSIGNEE(S):

BAYER CORPORATION (U.S. corporation)

NUMBER ' KIND DATE _____

PATENT INFORMATION: APPLICATION INFO.:

RELATED APPLN. INFO.:

US 2002165394 A1 20021107 US 2001-777920 A1 20010207 (9)

Continuation-in-part of Ser. No. US 2001-758548, filed on 12 Jan 2001, PENDING Continuation-in-part of Ser. No. US 1999-425228, filed on 22 Oct 1999, ABANDONED Continuation-in-part of Ser. No. US 1999-257266, filed

on 25 Feb 1999, ABANDONED

NUMBER DATE

PRIORITY INFORMATION:

US 1999-115877P

19990113 (60)

DOCUMENT TYPE:

Utility APPLICATION

FILE SEGMENT: LEGAL REPRESENTATIVE:

MILLEN, WHITE, ZELANO & BRANIGAN, P.C., 2200 CLARENDON

BLVD., SUITE 1400, ARLINGTON, VA, 22201

NUMBER OF CLAIMS:

EXEMPLARY CLAIM:

33 1

LINE COUNT:

3722

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2000:493376 HCAPLUS

DOCUMENT NUMBER:

133:120155

TITLE:

Preparation of .omega.-carboxy aryl substituted

diphenyl ureas as p38 kinase inhibitors

INVENTOR(S):

Riedl, Bernd; Dumas, Jacques; Khire, Uday; Lowinger, Timothy B.; Scott, William J.; Smith, Roger A.; Wood,

Jill E.; Monahan, Mary-Katherine; Natero, Reina;

Renick, Joel; Sibley, Robert N.

PATENT ASSIGNEE(S):

Bayer Corporation, USA PCT Int. Appl., 148 pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

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PATENT NO.
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    WO 2000041698 A1 20000720
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EP 2000-905597 20000113
    EP 1158985
                     A1 20011205
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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    US 2003105091
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                                                          20020304
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PRIORITY APPLN. INFO.:
                                      US 1999-257265 A2 19990225
                                      US 1999-425229
                                                     A2 19991022
                                      US 1999-115877P P 19990113
                                      US 1999-257266
                                                      B2 19990225
                                      US 1999-425228
                                                      B1 19991022
                                                      W 20000113
                                      WO 2000-US768
                                                      A1 20010910
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                        MARPAT 133:120155
OTHER SOURCE(S):
                             THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
REFERENCE COUNT:
                             RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
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